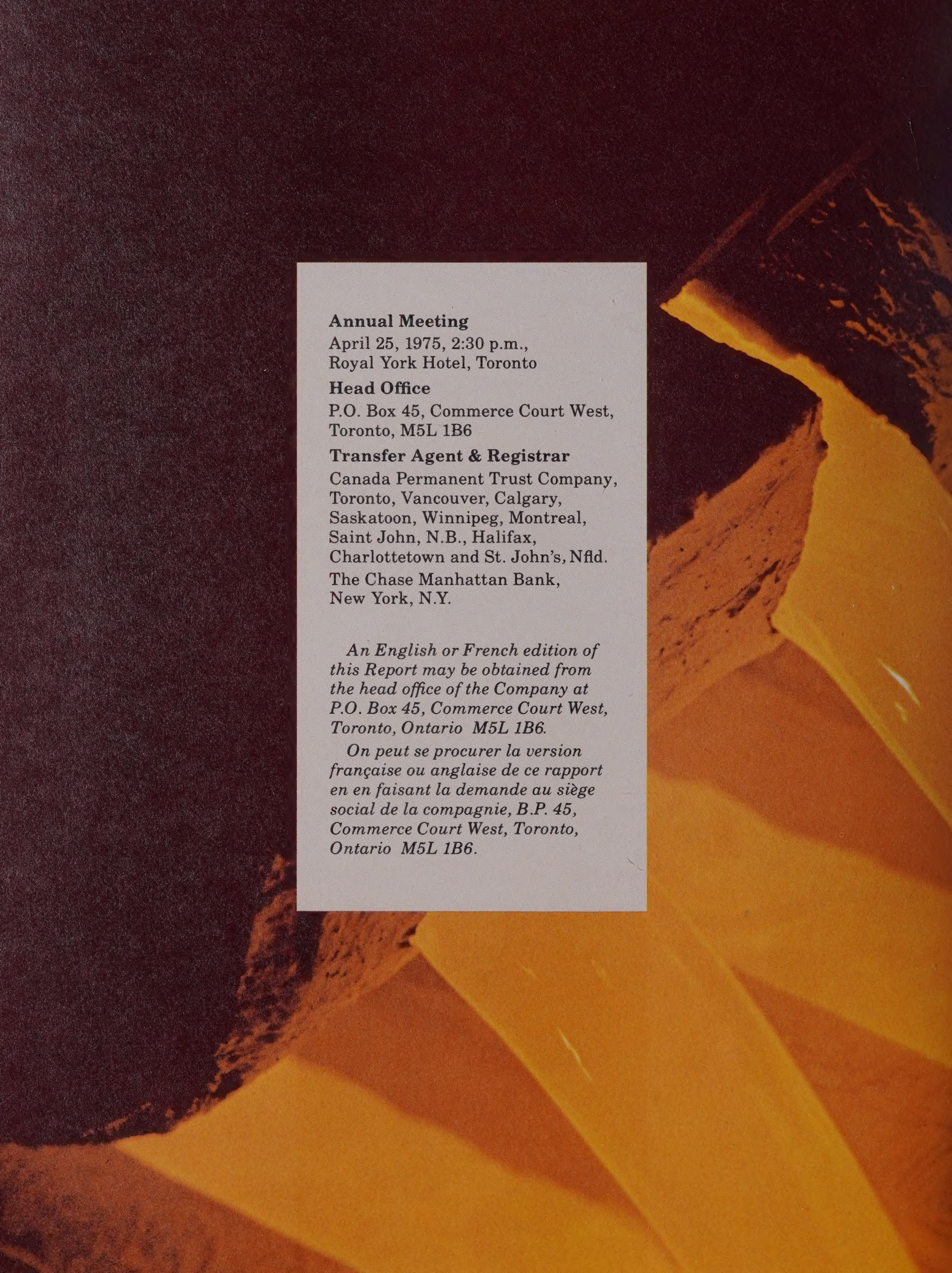
noranda

Annual Report 1974



Annual Meeting
April 25, 1975, 2:30 p.m.,
Royal York Hotel, Toronto

Head Office
P.O. Box 45, Commerce Court West,
Toronto, M5L 1B6

Transfer Agent & Registrar
Canada Permanent Trust Company,
Toronto, Vancouver, Calgary,
Saskatoon, Winnipeg, Montreal,
Saint John, N.B., Halifax,
Charlottetown and St. John's, Nfld.

The Chase Manhattan Bank,
New York, N.Y.

An English or French edition of this Report may be obtained from the head office of the Company at P.O. Box 45, Commerce Court West, Toronto, Ontario M5L 1B6.

On peut se procurer la version française ou anglaise de ce rapport en en faisant la demande au siège social de la compagnie, B.P. 45, Commerce Court West, Toronto, Ontario M5L 1B6.

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EXPLORATION
MINING
REFINING
MANUFACTURING
RESEARCH
FOREST PRODUCTS
CANADIAN

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968	1969	1970	1971	1972	1973	1974
25.5	578.9	610.7	632.0	758.5	1,101.7	**1,375.8**
8.4	118.5	130.5	148.0	175.3	210.4	**260.5**
6.9	31.7	38.7	44.3	46.2	63.7	**75.5**
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8.5	112.1	115.3	109.9	125.4	212.7	**297.2**
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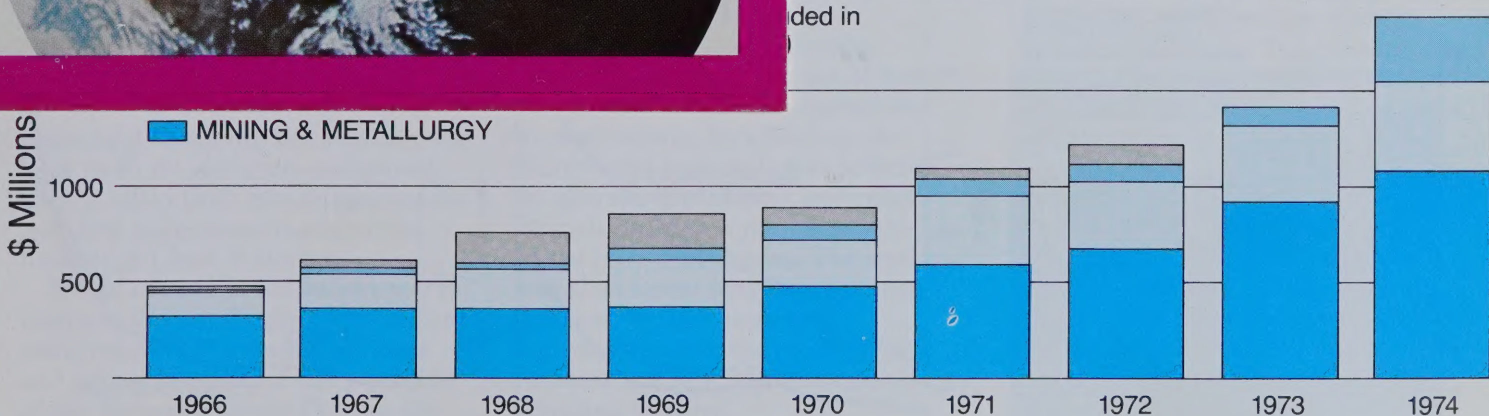

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noranda IS

☐ People. Twenty-two thousand Canadians applying diverse skills to the continued growth of Canada's 10th largest Canadian-owned corporation and the country's only integrated mining and fabricating company.

☐ A group of 61 companies—the Noranda Group—under the parent Noranda Mines Limited and operating 25 mines, forest product operations and 57 manufacturing plants in Canada and abroad.

☐ A 92 per cent Canadian-owned organization whose domestic and foreign subsidiaries and affiliates collectively produce more than $870-million annually in primary minerals, fabricated metals, aluminum products, plastics, fertilizers and forest products.

☐ Through associated and subsidiary companies, Canada's largest producer of refined copper and primary zinc and a major source of Canadian production of gold, silver, molybdenum, pulp and wood products.

☐ Exploration. The Noranda Group spends about $18-million a year on exploration in Canada and in more than 12 foreign countries. The Group also has a participation in Canadian oil exploration through Panarctic Oils Ltd. and Northern Oil Explorers Ltd.

☐ Research and development by a special division to ensure maintenance of Noranda's position in the forefront of mining and metallurgical technology and in the area of product improvement and new product development.

☐ Development and incorporation of improved methods of environmental control at primary and secondary producing operations.

☐ The world-wide marketing in 41 countries of minerals through a sales subsidiary, Noranda Sales Corporation.

☐ A 50-year-old Canadian company whose name is a contraction of the words Northern Canada.

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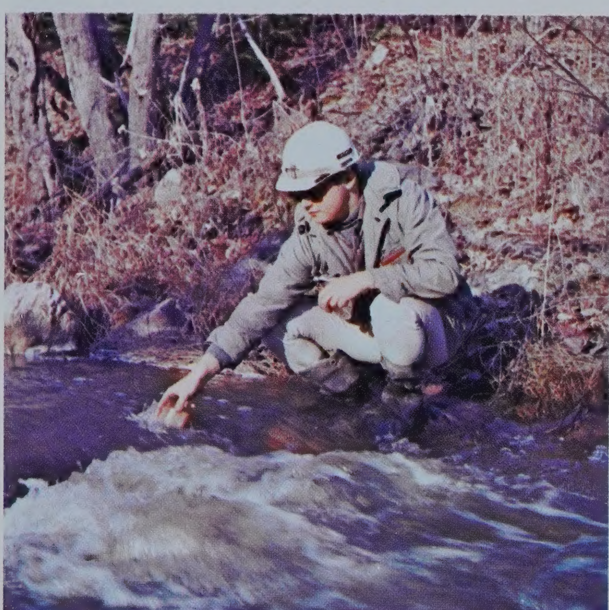
EXPLORATION

Exploration is mine-finding. The non-renewable aspect of mineral resources places incessant pressure on major mining companies to seek and develop new mineral sources to replace depleting deposits and to meet the rising demands for minerals by industry throughout the world.

On its own and through associated companies, Noranda is active in exploration in many countries, although Canada continues to be the company's main base of activity.

World-wide exploration involves the Noranda Group in annual expenditures of about $18-million. Besides Canada, exploration teams are active in the United States, Australia, Great Britain and Ireland. Exploration in Canada involves the Group in annual expenditures of almost $9-million a year.

A favorable tax climate for exploration in a number of foreign countries is a factor in the Group's expanded exploration efforts.



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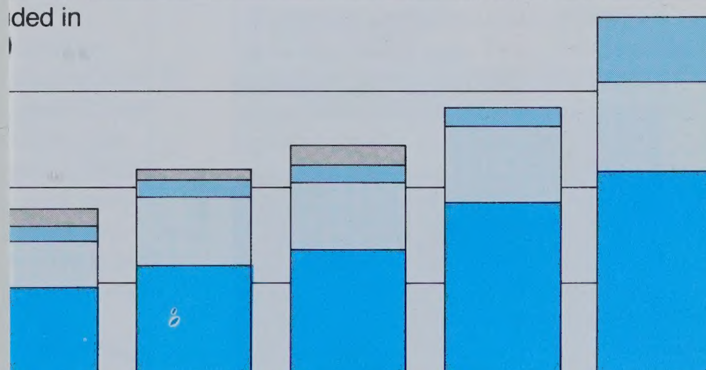

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MINING

Noranda has its origin in mining. It is the base from which the company has grown into Canada's only integrated mining operation with domestic and international interests engaged in the manufacture and sale of finished mineral products in international markets.

The Noranda Group produces eight major minerals: copper, zinc, lead, molybdenum, silver, gold, fluorspar and potash. By the end of 1972, the company will be producing nickel from a new joint venture operation in Northern Ontario.

Altogether, the Group operates 25 mines, of which 18 are in Canada.

Mineral production represents the mainspring for the Group's ability to generate more than $870-million a year in new wealth. Metal and mineral product sales by the parent company and its consolidated subsidiaries, but excluding a number of associated companies, now total almost $460-million annually.

The parent company operates a copper-gold mine in northwestern Quebec, a copper-zinc-silver mine in northern Ontario and one of Canada's largest mines—a copper operation—in British Columbia.

Associated and subsidiary companies operate copper mines in the Gaspe region of Quebec, copper-zinc mines in northwestern Quebec, gold mines in northern Ontario, a potash project in Saskatchewan and a molybdenum mine in British Columbia.

Abroad, gold mining is conducted by a Nicaraguan subsidiary; fluorspar is produced by a subsidiary in Mexico; and another subsidiary operates a copper mine in Chile.

The Group has three new Canadian mines under development and scheduled for production during 1972. They are a nickel project in northern Ontario, a base metals-silver mine in northwestern Ontario, and a copper mine in British Columbia. A uranium project in the Elliot Lake district of northern Ontario is on a standby basis awaiting an improvement in uranium demand and prices.

A $123-million expansion program initiated by the Noranda Group in 1971 at its Quebec copper mining, smelting and refining operations involves, in part, a doubling by the first half of 1973 of copper concentrate production at mines of subsidiary Gaspe Copper Mines Ltd.

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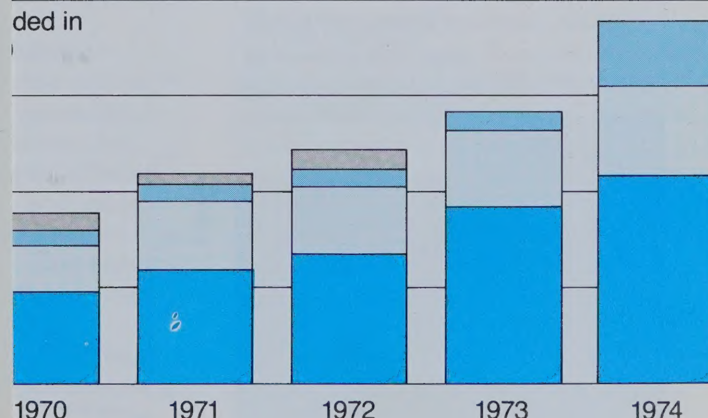

sets at cost, investments and other assets at book values.

REFINING

Noranda is an important producer of refined copper, zinc, gold, silver, and a number of minor metals. In connection with refinery operations, it is also a producer of metallic elements and sulphuric acid.

All of Noranda's copper production, together with output from other mines, is refined at the Montreal East refinery of Canadian Copper Refiners Ltd., a Noranda subsidiary formed in 1931.

With an annual capacity of 350,000 tons, which is scheduled to be enlarged to 408,000 tons annually in 1973, the refinery is one of the world's largest. It now accounts for almost 65 per cent of Canadian production of refined copper.

The refinery is also the largest single source of refined silver in Canada, annually producing almost 12,500,000 ounces in a separate plant. Selenium and tellurium are recovered as byproducts to silver refining.

Under the CCR brand, about two-thirds of the refinery's copper production is exported to more than 30 countries. Almost one-third of output is marketed in Canada.

Raw material for the refinery comes in two forms from three smelters: copper anodes from a smelter operated in Noranda by Noranda Mines Limited, and from the Gaspe smelter of subsidiary Gaspe Copper Mines Limited. The Flin Flon smelter of Hudson Bay Mining and Smelting Co. Ltd., ships blister copper cakes for refining on a custom basis. Copper scrap also represents an important "raw material."

Copper shapes produced by the refinery are wirebars, ingots, ingot bars, vertically cast cakes and vertically cast billets. In turn, these are used in rod mills, sheet and strip manufacturing, and in the production of alloys.

As a result of the expanding copper metal needs of its fabricating interests, Noranda must augment supplies to its manufacturing subsidiaries from its own extensive producing operations with copper purchased from other sources.

Custom smelting for mines outside the Noranda Group is a significant operation at both the Noranda and Gaspe smelters. About 90 per cent of the concentrates processed at the Noranda smelter, which is one of the world's largest custom smelters, comes from 23 independent mines.

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Zinc metal is produced at the Valleyfield, Quebec, refinery of Canadian Electrolytic Zinc Ltd. and at the New Brunswick plant of East Coast Smelting and Chemical Ltd. Both companies are Noranda Group subsidiaries.

The Valleyfield refinery has a rated annual capacity of 150,000 tons of refined zinc. There are recovery units for the production of cadmium metal and sulphuric acid.

The New Brunswick plant produces more than 100,000 tons of zinc metal annually and more than 20,000 tons of refined lead. There are units for production of silver, cadmium-zinc alloy, bismuth, lead-antimony alloy and sulphuric acid.

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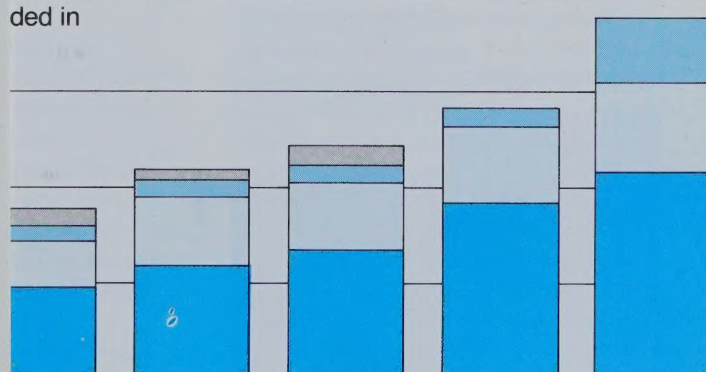

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MANUFACTURING

A diversified range of products flows from the Noranda Group's 57 manufacturing plants, of which 47 are in Canada.

Products include copper and brass mill items, zinc products for the automotive industry, wire and cable for electrical industry, aluminum and P.V.C. plastic pipe for construction, steel wire rope and iron foundry products, commercial fertilizer for the agricultural sector, and pulp and wood products that are marketed internationally.

A range of more than 17,000 wire and cable products comes from the nine Canadian plants of Canada Wire and Cable, a subsidiary that is associated with 13 manufacturing operations located in Mexico, the Dominican Republic, Venezuela, Colombia, New Zealand and Spain.

Aluminum metal for the Group's aluminum fabricating operation is produced at a new reduction plant at New Madrid, Missouri. Extrusion billet, sheet ingot and casting ingot products are shipped from this plant to Noranda's aluminum fabricating subsidiary in Cleveland and to other users for further conversion into such end products as doors, windows, siding and other construction items. The New Madrid plant also produces aluminum wire rod and cable.

Phosphate-based fertilizers are produced by a Quebec subsidiary, while potash from the Group's potash mine in Saskatchewan is sold in the main agricultural areas of Canada and the United States. Extruded plastic products are sold in construction markets. Sulphuric acid is produced in association with the Group's refining activities.

The Group is involved in the production of lumber, pulp, newsprint and plywood products through its own subsidiaries and through associated companies in British Columbia.

End uses of the Group's fabricated products are extensive. Copper, zinc and aluminum products are used in the production of cars, trucks, aircraft, new housing, plants and commercial buildings, ships, and in such household units as refrigerators, stoves and television sets.

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RESEARCH

Noranda's competitive position in domestic and world markets is supported by the research and development activities of the Noranda Research Centre.

Basically, the Centre is involved in the continuing study of the technology of minerals, the development of new processing technology, improvements to existing product lines and the development of new product uses.

In process technology, the Centre successfully developed the continuous copper smelting process reactor that is being incorporated in the current expansion of the Noranda smelter. Other advances by the Centre include the development of an improved copper-molybdenum alloy and zinc alloys for use in the auto industry.

A shift in mining emphasis to large, low grade deposits is giving more impetus to research into developing methods for improving mining and milling techniques. The increased importance of product research is reflected in the 30 per cent of the Centre's overall research efforts now directed in this area.

The Centre, which has a staff of about 100 professionals, works in close liaison with companies and plants within the Noranda Group.

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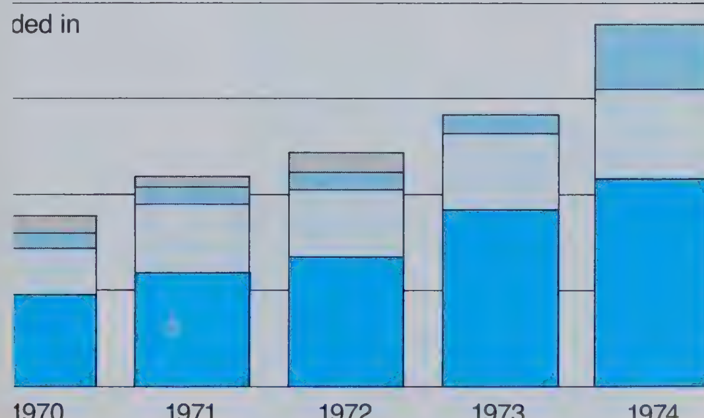

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FOREST PRODUCTS

Through its subsidiary, Northwood Mills, and its interests in Northwood Pulp and B.C. Forest Products, Noranda is the second largest producer of forest products in British Columbia.

Major products by this sector are lumber, pulp, newsprint and plywood. Bulk of production is exported.

Northwood Pulp, owned 50% by Noranda and 50% by The Mead Corporation of Dayton, Ohio, produces about 230 million board feet of lumber annually from forests that cover an area that is five times the size of the state of Rhode Island.

Through its international sales organization, Northwood Mills markets more than 650 million board feet of lumber annually.

Newsprint and plywood production by Noranda's associated companies is sold mainly in world markets.

A new $95-million pulp and wood products complex under construction by B.C. Forest Products at Mackenzie in the Peace River district is scheduled for completion before the end of 1972.

As with metal mining, smelting and refining operations, the Noranda Group emphasizes environmental protection at all stages of primary and secondary production in the forest products sector.

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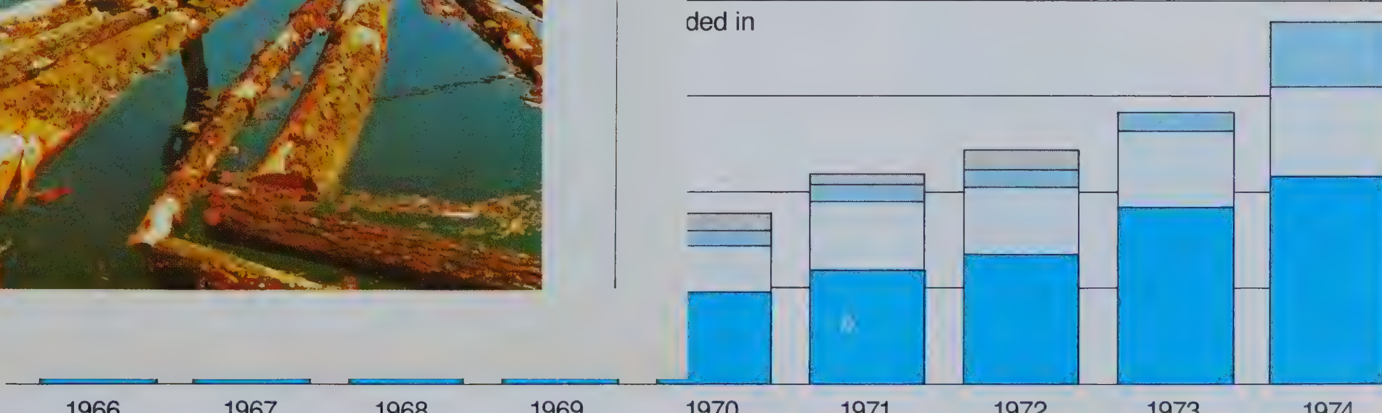

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ECONOMICS

Annual metal production by Noranda and its consolidated subsidiaries is almost $460 million, while another $400 million a year in production is accounted for by unconsolidated subsidiaries and associated companies.

Capital expenditures by Noranda Mines and its consolidated subsidiaries rose from more than $20 million in 1965 to almost $100 million in 1970. The expansion of the Group's copper mining, smelting and refining operations in Quebec will involve capital outlays of $123 million between 1971 and 1973.

The Noranda Group spends almost $200 million a year in Canada on purchases of power, supplies, raw materials and miscellaneous services.

Almost $180 million a year in wages and salaries is paid out by Noranda companies in Canada. Abroad, Noranda companies have an annual wage and salary payroll of about $24 million for more than 2,800 workers.

Annual dividends paid to the predominantly Canadian shareholders of Noranda Mines Limited and its consolidated subsidiaries exceed $27 million.

Noranda and its consolidated subsidiaries pay annual taxes in Canada of more than $37 million.

CANADIAN

Ownership of Noranda is held 92 per cent by 33,000 Canadians.

The Noranda Group provides direct employment to 22,000 Canadians in mining and related operations, in forest products and in diversified manufacturing activities. Noranda employees represent a broad range of professional, technical, clerical and other service skills. The Group employs more than 2,800 people at various foreign operations.

From its inception, Noranda recognized the importance of developing secondary processing and manufacturing facilities in Canada. Most of the Group's 57 manufacturing plants are located in Canada.

The bulk of the Noranda Group's commodity exports is accounted for by refined metal and semi-finished and finished products.

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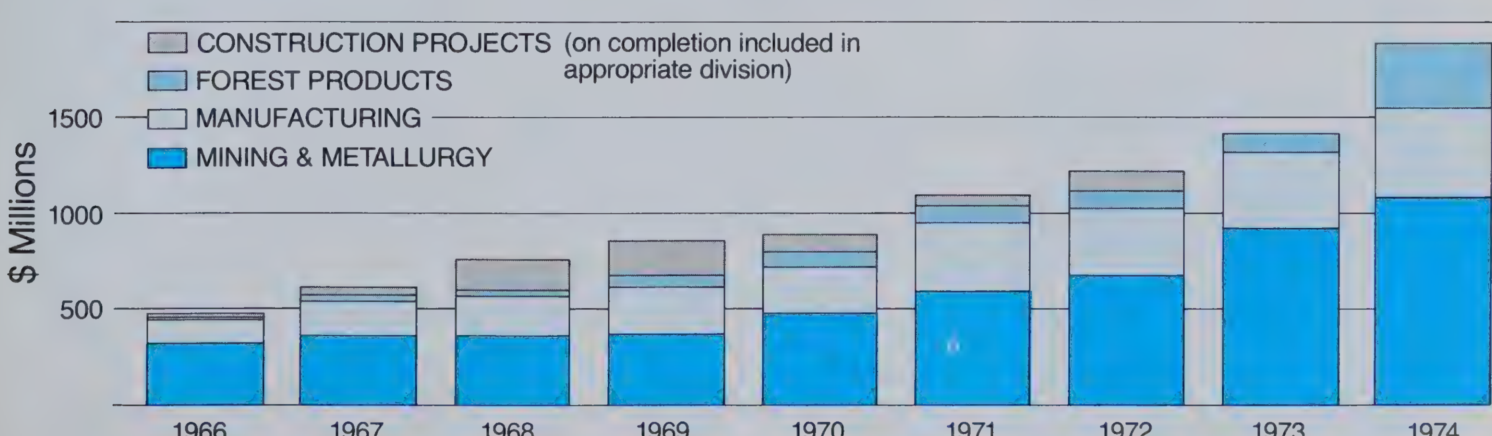
extending the horizons of Canada —
through natural resources

(Millions of Dollars)	1966	1967	1968	1969	1970	1971	1972	1973	1974
Revenue	342.0	455.0	525.5	578.9	610.7	632.0	758.5	1,101.7	**1,375.8**
Wages & Benefits Paid	66.4	78.6	88.4	118.5	130.5	148.0	175.3	210.4	**260.5**
Depreciation	19.8	23.8	26.9	31.7	38.7	44.3	46.2	63.7	**75.5**
Energy, Supplies, Services and Other Business Costs	164.0	254.1	311.7	316.6	326.2	329.8	411.6	614.9	**742.6**
Pre Tax Earnings	91.8	98.5	98.5	112.1	115.3	109.9	125.4	212.7	**297.2**
Provided For Payments to Governments	35.0	41.4	42.4	52.9	51.3	49.0	56.2	91.3	**142.3**
Earnings After Taxes	56.8	57.1	56.1	59.2	64.0	60.9	69.2	121.4	**154.9**
Re-Invested in the Business	34.8	35.0	31.6	32.8	36.8	31.9	40.5	88.5	**112.6**
Dividends Paid	22.0	22.1	24.5	26.4	27.2	29.0	28.7	32.9	**42.3**

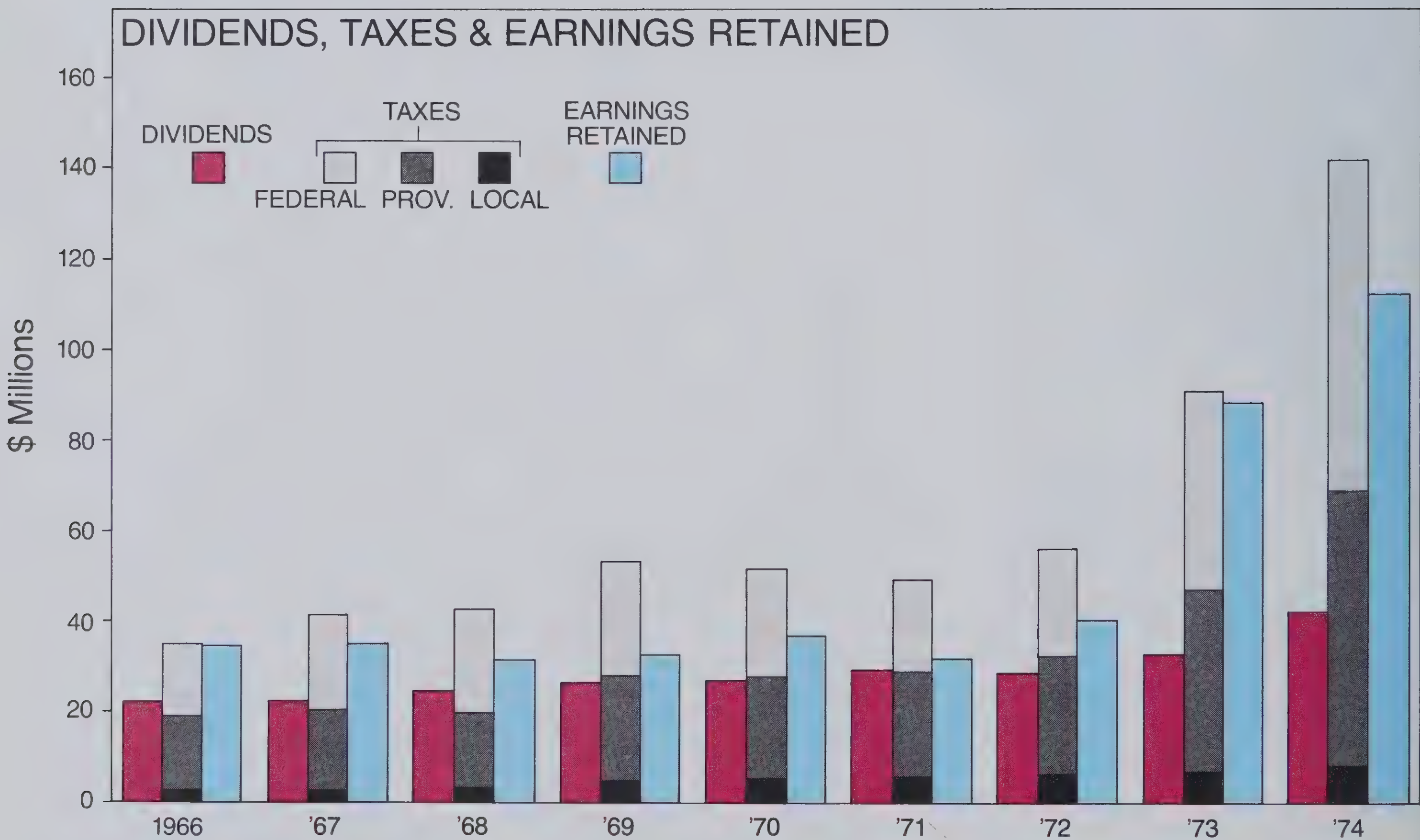
*Includes Noranda's proportionate share of the above items for those companies not wholly owned.

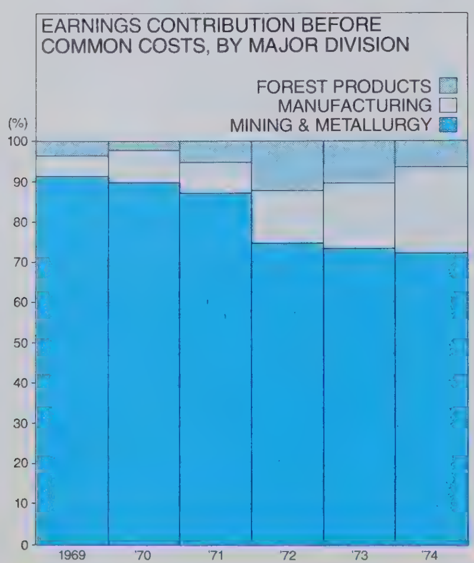
The total combined revenue shown above may be viewed as the new wealth generated by the Noranda Group — newly created goods and services for which customers were willing to pay $1,375,800,000 in 1974. This schedule shows how the funds exchanged for this new wealth were distributed. $260 million was paid in 1974 to employees for their services of which perhaps one quarter was in turn paid by them in taxes to support government activity. $742 million was paid to others for their goods and services, which payment as well as providing some further revenue to government from sales and indirect taxes, assisted in employment within supplier firms. $142 million was paid, or provided for future payment, to governments to discharge direct taxes. $42 million was paid to shareholders as a return on their investment. $75 million, representing the recovery of capital spent in previous years (the depreciation charge) together with remaining earnings of $113 million, were available to reinvest in assets and repay debt.

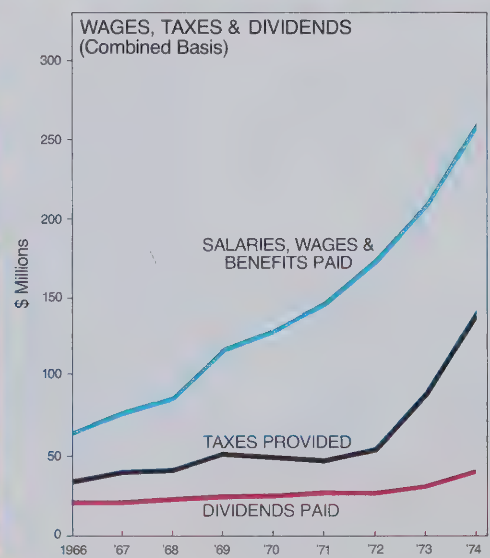
GROSS CAPITAL EMPLOYED* BY DIVISION

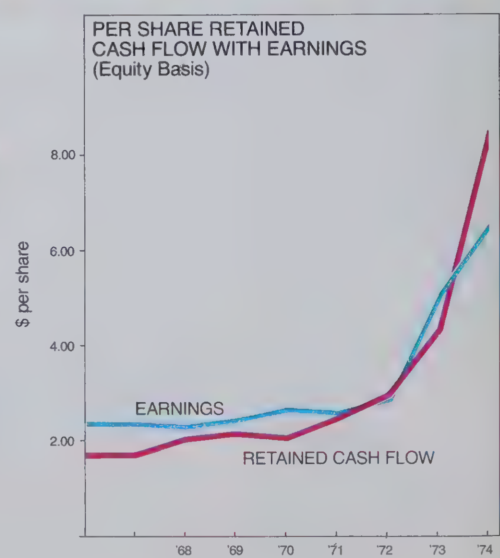


*Includes operating working capital, fixed assets at cost, investments and other assets at book values.


DIVIDENDS, TAXES & EARNINGS RETAINED
DIVIDENDS
TAXES
FEDERAL
PROV.
LOCAL
EARNINGS RETAINED
$ Millions
160
140
120
100
80
60
40
20
0
1966
'67
'68
'69
'70
'71
'72
'73
'74


EARNINGS CONTRIBUTION BEFORE COMMON COSTS, BY MAJOR DIVISION
FOREST PRODUCTS
MANUFACTURING
MINING & METALLURGY
(%)
100
90
80
70
60
50
40
30
20
10
0
1969
'70
'71
'72
'73
'74


WAGES, TAXES & DIVIDENDS
(Combined Basis)
$ Millions
300
250
200
150
100
50
0
SALARIES, WAGES & BENEFITS PAID
TAXES PROVIDED
DIVIDENDS PAID
1966
'67
'68
'69
'70
'71
'72
'73
'74


PER SHARE RETAINED CASH FLOW WITH EARNINGS
(Equity Basis)
$ per share
8.00
6.00
4.00
2.00
EARNINGS
RETAINED CASH FLOW
'68
'69
'70
'71
'72
'73
'74

Earnings and Dividends

Noranda had what appeared to be a highly satisfactory year in 1974. Earnings rose to a record $155 million, or $6.59 per share, compared with $121 million, or $5.17 per share, in 1973. Due to the impact of inflation, however, the improvement was largely illusory and the real rate of return on assets employed not satisfactory.

The contribution to earnings after taxes from the various divisions was as follows:

Earnings Per Share	1974	1973
From: Mining and metallurgy	$5.70	$4.56
Manufacturing	1.68	.99
Forest products	.48	.64
	$7.86	$6.19
Less common costs	1.27	1.02
	$6.59	$5.17

Of the earnings before taxes for the year (including Noranda's share of the pre-tax earnings of associated companies), 48% was provided for payments to governments and 38% was reinvested in improvements, replacements, new assets and working capital. The balance of 14% was paid in dividends to shareholders. On the Class A shares, four quarterly dividends of 40¢, 45¢, 45¢ and 50¢ were paid, bringing the total for the year to $1.80 per share compared with $1.40 in 1973. Similar payments less 15% taxes were made to the holders of Class B shares.

World economic conditions were buoyant during the first half of the year, resulting in strong demand and prices for most of the products of the Noranda group. During the second half, however, demand weakened significantly. The impact was most severe in the case of copper and lumber, but nearly all products were affected. At the same time, costs continued to rise inexorably.

Despite the declining trend in the second half, average prices for mine products for the year as a whole were substantially higher than in 1973. On the other hand, results were adversely affected by strikes at the Brunswick mine and Valleyfield zinc plant, and by continuing production difficulties at Gaspé Copper. In addition, the impact of higher tax rates reduced earnings from mining operations by $11.1 million, or 47¢ per share. (Had these increased rates been in effect for the full year, the impact would have been $18.3 million, or 78¢ per share.) Exploration costs rose sharply due to a new exploration program for oil and gas. The net result was a 25% increase in earnings from mining and metallurgical operations.

Manufacturing earnings rose by 69%, the major factors being an outstanding performance by Canada Wire and Cable and a substantial improvement in aluminum prices in the United States.

A drastic decline in lumber demand forced the closing of four sawmills and reduced operations at most others. In addition, the Northwood pulp mill was affected by operating problems and most British Columbia plants experienced labour problems. The result was that forest products earnings declined by 25% despite a significant contribution from the interest in the Fraser Companies acquired in April.

Inflation

Aside from its impact on operating costs, inflation at the rates currently being experienced introduces serious distortions into financial statements prepared in the traditional way. Professional accountants have recognized the need to display the effects of inflation upon earnings and have recommended that historical cost financial statements be restated to reflect changes in the general purchasing power of money, with the use of a general price index. A major concern is that, if price level accounting is adopted, investors and the public at large will conclude that the resulting statements fully reflect the impact of inflation on a company's affairs. This is simply not so, since the cost of new construction and equipment has been escalating at a rate far beyond increases in the Consumer Price Index or the Gross National Expenditure implicit price deflator. It is estimated that the cost in current dollars of developing a new mine or building a new plant is more than double what it was three years ago and five times what it was ten years ago. Thus the need to take the impact of inflation into account is imperative — by management and shareholders in making their respective investment decisions and by governments ensuring that their legislation taxes only income and not the return of capital. An acceptable means of measuring this impact is yet to be found.

In financial statements, assets and liabilities are carried at historical costs while earnings are stated in current dollars, and the

two are simply not the same thing. One result is that depreciation charges, which are based on historical costs, become completely inadequate to provide funds for needed replacements of worn-out or depleted assets. Thus, earnings from operations are seriously overstated. Another result is that capital employed is greatly understated in terms of current dollars, leading to the illusion that the rate of return from operations is much larger than it really is.

In current dollars and using present construction costs as an index of replacement value, Noranda's fixed assets would be at least twice the stated value on the balance sheet. If Noranda's accounts, together with those of its associates were adjusted to reflect this, the result would be as follows:

	Historical Cost Basis	Current Value Basis
	(Millions)	(Millions)
1974 Earnings from operations	$155	$ 79
Net worth	693	1,500
Return on net worth	22.3%	5.3%

This adjusted figure of $79 million for real earnings from operations is after deducting provisions for taxation (including Noranda's share of taxes provided by associated companies) of $142 million.

Major Developments

Work on the 50% expansion of the Canadian Electrolytic Zinc plant at Valleyfield continued throughout the year. Delays in equipment deliveries and the poor productivity of construction workers will delay completion to September, 1975. Due to these factors together with inflation and some changes in scope, this program is now estimated to cost $56 million, nearly double the original estimate.

Sinking of the second shaft at the Brunswick number 12 mine is underway. When completed in the late 1970's, this will permit expanded underground production which will more than offset depletion of the number 6 open pit mine. Due largely to inflation, the estimated expenditure has been revised from $28.5 million to $48 million.

Noranda Metal Industries is constructing a nuclear tube plant near Arnprior, Ontario which will begin partial operations during 1975. The estimated cost of this project has risen by $5 million to $23 million.

Noranda Aluminum is doubling the capacity of its plant at New Madrid, Missouri to 140,000 tons of metal per year. Together with facilities to improve environmental control, this program will cost an estimated $82 million, with completion scheduled for 1976.

Participation in a proposed copper smelter and refinery in Korea has been deferred due to escalating construction costs and the depressed state of world copper markets.

During the year, a 38½% interest was acquired in Frialco, a Cayman Islands corporation which in turn has a 51% interest in Friguia. Friguia mines bauxite and produces 650,000 metric tons per year of alumina in the Republic of Guinea.

In April, a majority interest in Fraser Companies was acquired. Fraser is a significant producer of lumber and pulp in New Brunswick and of paper in Maine. Northwood Mills has made arrangements to purchase Airscrew-Weyroc Canada Limited, which owns a particle-board plant at Chatham, New Brunswick.

During 1974 Noranda acquired on the market a 20% interest in Tara Exploration and Development, which had discovered a major zinc-lead deposit in Ireland. Further development of this orebody was deferred pending receipt from the Irish government of a state mining lease on acceptable terms. Agreement on such terms was reached in February 1975, although the actual lease has not yet been issued. In the meanwhile, Noranda has arranged or guaranteed interim financing for Tara amounting to about $15 million.

In January, 1975 Noranda made an additional investment in Wire Rope Industries Ltd. and Bridon-American Corp., increasing its interest in each company to 51.4% from 40% previously. Bridon-American has acquired the steel wire rope business formerly operated by Jones & Laughlin Steel Corp.

With the impact of inflation on capital costs, the cost of needed replacements places great pressure on available funds. In addition, inflated costs and new tax measures have eroded the economic viability of new projects in mining and related fields throughout much of Canada. In the light of these factors together with an anticipated reduction in cash flow, it was decided to reduce by $100 million (about 45%) the capital spending previously planned for 1975. Among the projects affected were a $50 million expansion of the Horne smelter and

an $8 million expansion at Central Canada Potash.

Capital expenditures and investments during 1974 totalled $181 million, nearly double the total in 1973, and long-term debt increased by $48 million. Retained cash from operations was $202 million, and net working capital increased by $36 million.

During 1975, increased working capital will be needed to finance an expected rise in the level of inventories. Despite the planned reduction in capital expenditures, additional long-term financing may prove desirable.

Taxation

In terms of the future of mining in Canada, the most significant event of 1974 was a radical change in taxation. The result has been a complete reversal of past policies, which worked so well, of incentives for the exploration and development of new mines. In the process, the industry has been caught in the middle of a federal-provincial battle over taxing powers.

British Columbia imposed a gross royalty on production and a "super royalty" on price increases. Saskatchewan imposed a tax on potash reserves in the ground. Manitoba substantially increased conventional mining taxes pending introduction of a new system. Ontario and Quebec weighed in with savage new graduated taxes. And the federal government, concerned that this bewildering array of measures was unreasonably eroding its corporation tax base, proceeded to disallow them as expenses in calculating income taxes.

The end result of these rapacious and unco-ordinated tax changes is an abrupt and profound change in the mining industry's circumstances. Along with oil and gas, mining has become the most heavily taxed sector of the Canadian economy. As an extreme example, total taxes in British Columbia are likely to exceed 100% of taxable income in 1975, with rates in most other provinces in which Noranda operates being well in excess of 50%. As a result, it will not be possible for the private sector to earn a reasonable return on most new mine development in future, and stagnation and decline in the level of mining activity in Canada will be the inevitable consequence.

Executive Changes

During the year, Messrs. John R. Bradfield and Richard V. Porritt retired as Chairman and Vice-Chairman respectively and as directors of Noranda. Each had contributed 48 years of distinguished service to the Company. Messrs. A.H. Zimmerman and A.J. Little replaced them as directors. Mr. W.S. Row was elected Chairman of the Board, Mr. William James Executive Vice-President—Mining and Metallurgy, Mr. Adam Zimmerman Executive Vice-President—Manufacturing and Forest Products and Mr. D.H. Ford Vice-President—Comptroller.

Outlook

Economic conditions as they affect Noranda are likely to remain unfavourable for at least the next six months. Aside from general economic conditions, many of the products of the Noranda group are particularly sensitive to the level of activity in the automotive and housing industries, which have been severely affected. As a result demand for, and prices of, most of the products of the Noranda group are weak. At the same time, there is no end in sight to the pressure of inflation on operating costs, and the new tax systems will be in effect for the full year.

In these circumstances 1975 will not be a satisfactory year. Earnings will be less than in 1974, and while they may be at levels which would have been satisfactory by pre-1974 standards, the real rate of return on assets employed will be totally inadequate when adjusted for inflation. Emphasis will be placed on maintaining financial strength and flexibility to ensure that advantage can be taken of any new opportunities which may arise.

Looking beyond the current recession, circumstances clearly require a change in direction. While Noranda has a strong position in manufacturing and forest products, mining and metallurgical activities will not be de-emphasized, and the overall level of exploration will not be curtailed. However, as new mining projects will not be feasible in much of Canada, a more international approach will be required.

Noranda's assets include a strong and diversified operating base, a sound financial position and a high level of technological expertise. Despite present problems, management is confident regarding the longer range future of the Company.

On behalf of the board,

February 14, 1975
Toronto, Ontario.

President.

Directors, Honorary Directors, Officers

Directors

James C. Dudley,
Independent Financial Consultant,
New York — Elected 1970

Louis Hébert,
Chairman and Chief Executive Officer,
Banque Canadienne Nationale,
Montreal — Elected 1968

William James*,
Executive Vice-President,
Noranda Mines,
Toronto — Elected 1968

André Monast,
Partner — St. Laurent, Monast,
Walters and Vallieres,
Quebec — Elected 1966

Alfred Powis*,
President and Chief Executive Officer,
Noranda Mines,
Toronto — Elected 1964

W.S. Row*,
Chairman,
Noranda Mines,
Toronto — Elected 1960

Honorary Directors

J.R. Bradfield, Honorary Chairman
F.M. Connell
A.O. Dufresne
L.H. Timmins

Officers

Alfred Powis,
President and Chief Executive Officer

W.S. Row,
Chairman

William James,
Executive Vice-President

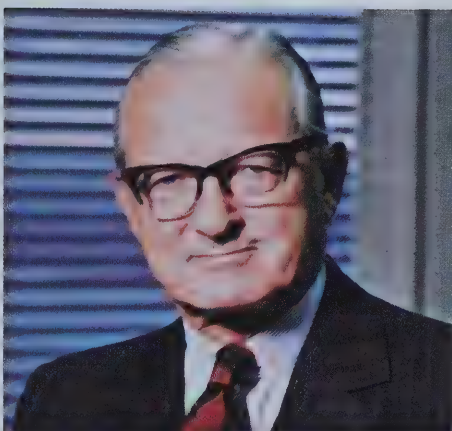
A.H. Zimmerman,
Executive Vice-President

J.N. Anderson,
Vice-President — Metallurgy

R.C. Ashenhurst,
Secretary

W.G. Brissenden,
Vice-President — Mines

E.K. Cork,
Vice-President — Treasurer



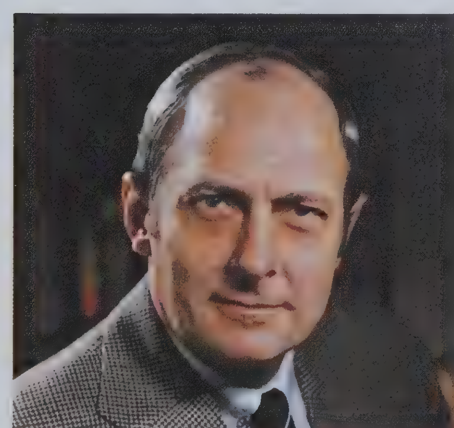
A.J. Little,
Company Director,
Toronto — Elected 1974

L.G. Lumbers,
Chairman,
Noranda Manufacturing Ltd.,
Toronto — Elected 1962

D.E. Mitchell,
President and Chief Executive Officer,
Alberta Energy Company Ltd.,
Calgary — Elected 1973

J.D. Simpson,
Chairman,
Placer Development Ltd.,
Vancouver — Elected 1962

W.P. Wilder*,
Chairman,
Canadian Arctic Gas Pipeline Limited,
Toronto — Elected 1966



A.H. Zimmerman*,
Executive Vice-President,
Noranda Mines,
Toronto — Elected 1974

D.H. Ford,
Vice-President — Comptroller

J.A. Hall,
Vice-President — Mine Projects

K.C. Hendrick,
Vice-President — Sales

J.O. Hinds,
Executive Assistant to the President

R.L. Pepall,
General Counsel

R.P. Riggin,
Vice-President — Corporate Relations

D.E.G. Schmitt,
Vice-President — Mines

B.H. Grose,
Assistant Secretary

W.J. Barbour,
Assistant Treasurer

B.C. Bone,
Assistant Treasurer.

*Member of the Executive Committee

Mining and Metallurgy

During the past year there have been substantial changes in some of the conditions that affect Noranda and the mining industry. The most significant was the downturn in the consumption and price of copper resulting in decreased revenues in the last half of the year. This, combined with continuing escalation of the cost of labour and materials, resulted in sharply decreased profits for the higher-grade mines and losses at the lower-grade operations. In additon to these adverse economic factors, there have been drastic changes in taxation by many of the provinces and to an extent double taxation by the federal government.

Base metals are international commodities and Canadian mines must compete with those in countries where labour rates are significantly lower. To date, we have been successful for several reasons. Canada has a favourable geological environment, a productive labour force, a capital intensive industry, technical expertise and until recently there was good co-operation between the mining industry and both the federal and provincial governments. These factors have attracted resourceful people and risk capital to develop the Canadian mining industry to its present stature where Canada ranks third in the world in overall production and first on a per capita basis. The pragmatic test of Canadian entrepreneurial skills and efficient productivity is that we have profitably opened and operated some of the lowest-grade mines in the world. Mining is one of the few industries in which Canadians are competitive on an international basis.

Canada has benefited from mining. It provides direct and indirect

Noranda — Interests
Summary of Canadian Mine Production

Mines		Product						
	Ore Treated *(tons)*	Copper *(tons)*	Zinc *(tons)*	Lead *(tons)*	Molybdenum *(tons)*	Potash *(tons of muriate)*	Silver *oz.*	Gold *oz.*
Noranda*	7,298,300	62,270	71,000	1,700	910		2,058,000	98,880
Gaspé	10,547,000	51,330						
Brenda	9,550,000	15,300			3,820			
Brunswick	2,608,000	4,770	133,690	41,400			3,038,550	
Central Canada Potash	2,721,000					1,037,000		
Kerr**	687,200	3,000	14,850				141,980	110,500
Mattagami Lake	1,407,000	6,600	96,700				242,160	4,700
Mattabi	1,139,000	8,610	89,700	4,350			3,409,000	
Orchan	364,000	3,550	14,200				58,400	
Pamour Porcupine	1,780,600	4,080					62,990	143,260
Placer								
Endako	7,508,000				6,025			
Craigmont	1,500,000	21,700						
Gibraltar	13,397,000	45,120						

**Horne, Geco, Bell Copper, Boss Mountain*　　***Kerr, Normetal, Joutel*

Photo:
Gaspé Copper Mines,
Murdochville, P.Q.

employment for 11% of our labour force. While only a small part of Gross National Product, it accounts for more than one-quarter of our exports. It consumes $2,000 million in production from secondary industry and provides a domestic source of basic raw materials for a host of secondary manufacturers and suppliers. It provides 60% of all tonnage carried on Canadian railroads. Average wages in mining have increased by over 16% in the past year and are second only to construction.

Noranda's policy over its corporate history has been one of further processing its mine products and, where possible, fabricating its metals. In 1927 the Horne smelter began production at Noranda and in 1931 Canadian Copper Refiners was built in Montreal. Since then Canada Wire and Cable and Noranda Metal Industries have been developed to further process Noranda's copper. A similar policy has been followed in zinc. After developing a number of zinc mines, Canadian Electrolytic Zinc was built at Valleyfield, Quebec, in 1963 and is now undergoing its second expansion to 225,000 tons per year of slab zinc.

If Canada is to maintain its position in the world mining industry and effectively utilize its people, resources and risk capital, it will be necessary to have better understanding and co-operation between the industry and the federal and provincial governments. Noranda will continue to work towards this goal.

During 1974, the mining industry was faced with a host of new and complex tax rates and structures. In response to the foreseen drain on its treasury caused by increased Provincial levies, the federal government announced the following measures in its November 18 budget, retroactive to May 6:

i) The basic income tax rate on mining profits was increased to 50%, with a 10-point abatement for provincial income taxes and a special 15-point abatement in lieu of a deduction for provincial mining taxes. In effect, this produced a federal rate of 25% and, since most provinces have a 12% rate, a total income tax rate of 37%.

ii) Mining taxes and royalties paid to provincial governments were no longer deductible in calculating income for income tax purposes.

iii) "Earned" depletion, deductible at a maximum rate of 25% of taxable income, replaced the previous automatic depletion of 33.3%.

The effect of all of these changes on the tax rates applicable to mining operations is as follows:

Tax Rates	B.C. (b)	Sask.	Ont. (c)	Que. (c)
	%	%	%	%
Provincial				
royalties	30.7	47.3	22.1	23.0
income tax	12.0	12.0	8.0	6.2
Federal				
income tax	25.0	25.0	25.0	25.0
Total rate (a)	67.7	84.3	55.1	54.2
1973 rate	42.0	57.2	42.0	42.0

(a) These rates assume no earned depletion. Automatic depletion continues to be available in the calculation of Ontario and Quebec provincial income taxes. Where earned depletion is available, it will reduce overall rates by 6.2 points in Ontario and Quebec and 9.2 points in the other provinces.

(b) These rates are for a copper mine and assume a metal price of $1.00 per pound and total costs of 63¢ per pound including 17¢ treatment charges. Provincial royalties are 5% of net smelter return plus 50% of the excess of the net smelter return over a base price, currently 78¢. Thus, the tax rate varies with the copper price — it becomes, for example, 87% at $1.40, 65% at 85¢, and over 100% at 70¢. The rate is actually lowest at 78¢, and increases as the price rises or drops from that level. At present price levels, the 1975 rate for Brenda Mines Ltd., for example, will exceed 100%.

(c) These are the effective rates at $40 million of taxable income. At $20 million of taxable income the rate would be 51.4% in Ontario (51.8% in Quebec) and at $100 million the rate would be 61.9% (55.5% in Quebec). The maximum marginal rate of 67.0% is encountered at the $40 million income level in Ontario; the comparable Quebec rate of 56.5% is faced at the $10 million income level.

In comparison with 1973 tax levels, the various changes increased Noranda's tax bill in respect of mining profits by approximately 20%. Had these changes been in effect for the full year this tax bill would have increased by about 31%.

Manufacturing
Contrary to the general Canadian view, there are substantial investments in secondary processing by raw material producers. Noranda is one of those which, as an active policy, has since 1932 been developing "full integration". Today, Noranda's wire, cable, copper and brass plants consume approximately all the copper its own mines produce. This has led into other businesses related to copper fabrication and changing technology. Thus, Noranda's aluminum activity is an outgrowth of the production of aluminum conductor wires, as that product replaced copper.

Possession of wire and cable technology led to a significant position in the steel wire rope business. So, also, the plastic pipe operation is a response to the inroads of that product on the copper pipe and tube business. To protect supplies essential to its mineral processing activities, Noranda acquired and established foundries to manufacture grinding media. This is now leading into further secondary metal processing operations.

The measure of these activities can be summarized as follows for 1974.

	($000's)
Revenues	563,961
Earnings Contribution	39,337
Paid to Employees	77,040
Employees	8,000
Tons of Product (approx.)	400,000

It might be expected that these operations could outgrow the natural resource elements of Noranda's interests over the next few years, as the Canadian population and industrial capability grow, and, also, as governments continue to debilitate private enterprise resource development. The ability to grow in manufacturing will depend entirely on two things—productivity and the relative cost to establish facilities.

In recent years, Canadians have lost ground competitively, as wages have risen faster than in the U.S.A. This has not been matched by improved output per combined dollar of capital and labour, even though manufacturing is promptly responsive to international differentials in productivity, quality and efficiency. Canadians must earn their market share in the light of these realities.

During the last five years, Noranda's manufacturing companies have invested $175.6 million in new facilities. Of this amount, including the aluminum reduction plant, $129.6 million has been spent in other countries. This reflects a natural move, principally in wire and cable, where significant domestic growth possibilities are limited. Many foreign countries seek Noranda's technical capabilities, and these ventures are entered into on a minority basis with local partners. This method has worked well and will probably continue as the basis for international growth.

Forest Products
Canada's forest industry: pulp, paper, lumber and other wood products, is its largest in terms of sales and employment. Built as it is on a vast renewable base, covering almost a million square miles, the industry is one of the basic building blocks of the country's economic past and future.

Noranda operates directly and indirectly across the whole spectrum of the forest products industry, both nationally and internationally. Its lumber, plywood, pulp and paper operations are conducted through Northwood Mills (100%), Northwood Pulp and Timber (50%), and British Columbia Forest Products (28.9%), all of which are located in British Columbia, and Fraser Companies (54.6%) in New Brunswick and Maine, U.S.A.

Noranda's direct interest in these operations is shown in the following summary:

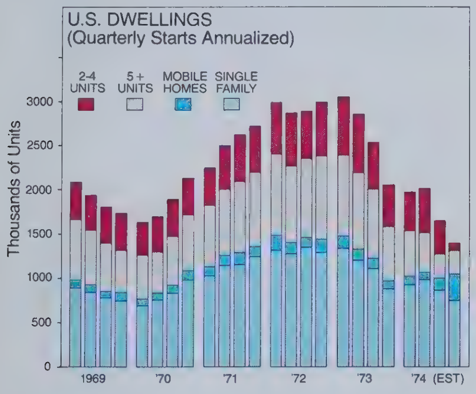
	($000's)
Revenues	365,126
Earnings Contribution	11,317
Paid to Employees	69,672
Employees	3,850

The year's production of Northwood Mills, together with Noranda's share of Fraser, Northwood Pulp and Timber and BCFP, is outlined in the table below:

	Lumber	Market Pulp	Fine Paper Paperboard & Newsprint
	MM fbm	M Tons	M Tons
Total	1,083.3	684.9	661.1
Noranda's interest	497.2	242.7	297.7

Lumber

As can be seen, Noranda's forest activities produce a large volume of lumber, whose market depends very heavily on U.S. housing starts. When these are 50% of need, it is probably fair to say that none but a specialty lumber mill can survive for long. It is probable that these interests will return at least to a marginally profitable level during 1975. A portion of this lumber production is sold in overseas markets, which have historically tended to offset the swings in North America.



Pulp & Paper

Noranda's pulp activities are conducted most directly through Northwood Pulp and Timber, a joint venture with The Mead Corporation of Dayton, Ohio. Approximately half of Northwood's Prince George, B.C. mill capacity of 750 tons per day of fully bleached softwood kraft is sold to Mead, and the balance is marketed world-wide by Mead Pulp Sales to producers of white paper products. The pulp production of B.C. Forest Products is marketed the same way with a higher proportion going to the open market. An important tonnage from each of these companies will henceforth be used by Fraser Paper.

Pulp prices have improved over the past few years, from the extremely depressed level of 1971, to a more realistic level of approximately $370 per ton at the end of 1974. Most of this increase was necessary to restore profit margins and to accommodate rapidly rising costs for raw materials, energy, supplies and labour. Nevertheless, at present levels, these pulp prices are still inadequate to justify new investment, and barely sufficient to sustain the wood product side of integrated operations. Notwithstanding prospects for slower growth over the near-term in North America, the outlook for pulp is good as very little new capacity is being added.

Noranda's paper interests are principally through the activity of Fraser Companies Ltd., whose paper and paperboard production for the full year 1974, totalled 425,000 tons. These products are sold by the Company's own sales force, directly to merchants and consumers in Central and Eastern Canada and the United States. Paper sales volume showed a significant declining tendency at the end of 1974, which trend is expected to continue through the first quarter of 1975. The result has been short time on most machines in the North American paper industry.

In addition to the foregoing, Noranda is affected by its share of the annual newsprint volume of some 240,000 tons produced by BCFP.

The commodity shortages which developed in 1972 carried over into early 1974. Record prices were reached for most metals before continuing high inflation and spreading recession caused a reduction in consumption.

Demand was further reduced by consumer efforts to lower inventories, resulting in a build-up of industry stocks by year end.

It is unlikely that metal markets world-wide will improve significantly until there is renewed consumer confidence, particularly for purchases of housing and automobiles.

Cu

Copper

Refined production continued its steady growth through 1974, increasing to 7.6 million tons, 3% over 1973 and 8% over 1972. In contrast to the previous year when consumption exceeded production by 3%, 1974 saw a drop in consumption by 6% to 7.2 million tons resulting in a heavy surplus of refined supplies.

Demand in early 1974 was sustained by the momentum from the growth surge of the previous 18 months. Although economic activity was declining, the impact was delayed by inevitable inertia and by the threat of mid-year producer strikes in the U.S.A. Consequently, the pressure for supplies continued until early April when the London Metal Exchange price reached an all-time high of £1,400 per ton or $1.52 U.S. per pound.

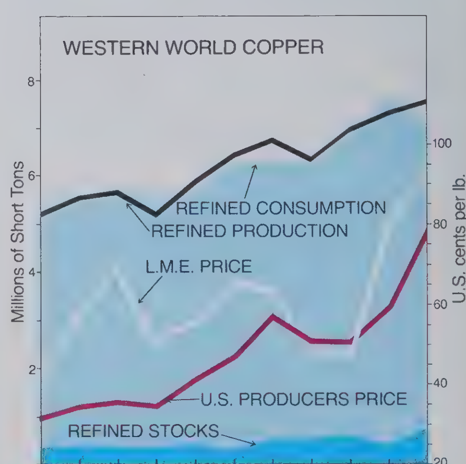
With the true situation hidden and demand rising, the U.S. Congress approved the release of the last 200,000 tons of copper from the strategic stockpile. This supplementary supply exceeded the loss of 140,000 tons in U.S. refined copper production due to the relatively short-lived strikes in July and August and was shipped as consumption was declining.

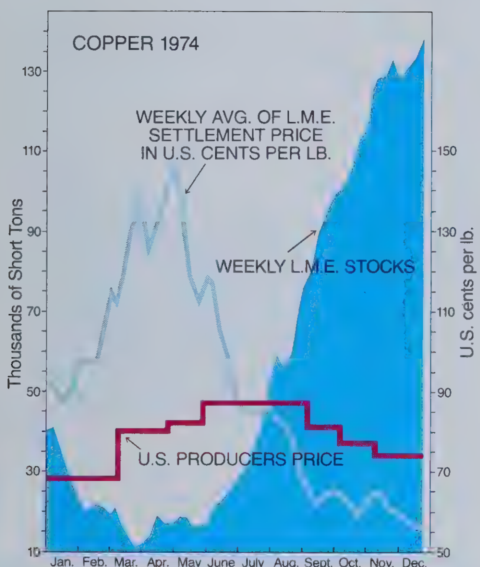
The sharp decline in the Japanese economy was reflected in the build-up of local producer stocks as early as the second quarter. The subsequent export of this copper to an unreceptive market initiated the rise in LME stocks and the decline in overseas prices.

When the traditional post-summer improvement in demand did not occur due to the deepening recession, particularly in the automotive and electrical appliance sectors of the U.S. economy, a severe inventory liquidation took place throughout the distribution system. This, in turn, forced fabricators to curtail production sharply while deferring or cancelling fourth-quarter refined copper purchases.

In response to surplus supplies of copper and falling prices, world producers announced a series of production or shipment adjustments. The four CIPEC countries, Chile, Peru, Zaire and Zambia, reduced exports 10%, in December. Several U.S. producers lowered mine output and Japanese smelter production cutbacks of 20 to 40% forced curtailments in copper concentrate supplies from Pacific area mines. With the increase in refined copper stocks of some 500,000 tons in 1974 and the potential of an equal or larger accumulation in 1975, further worldwide production adjustments will be required to bring the market into balance.

Prices on the London Metal Exchange reflected and amplified the year's events and developments, ranging from 90¢ per pound in January to $1.52 in early April and then to 53¢ in January, 1975. U.S. and Canadian producer wirebar prices followed these trends, rising from 68¢ and 74¢, respectively, in January to 85¢ and 82.5¢ in June, 1974, before declining to 63⁵/₈¢ and 63³/₈¢ in January, 1975.





Zinc

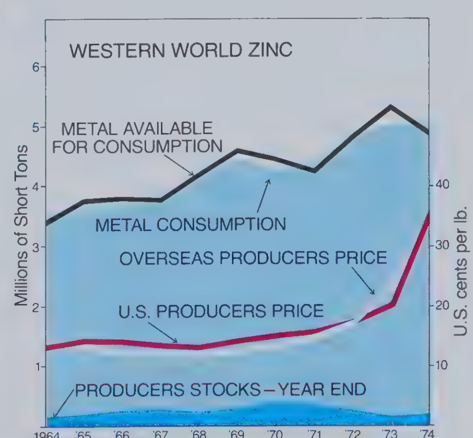
From the middle of 1973 to the fourth quarter of 1974, demand was limited by metal availability. Smelter production of 4,700,000 tons was unchanged from 1973 but exceeded recoverable mine production of 4,400,000 tons and concentrate stocks were reduced to minimum operating levels. Metal supplies were supplemented by shipments of 265,000 tons from the U.S. stockpile, leaving only 150,000 tons authorized for release from this source.

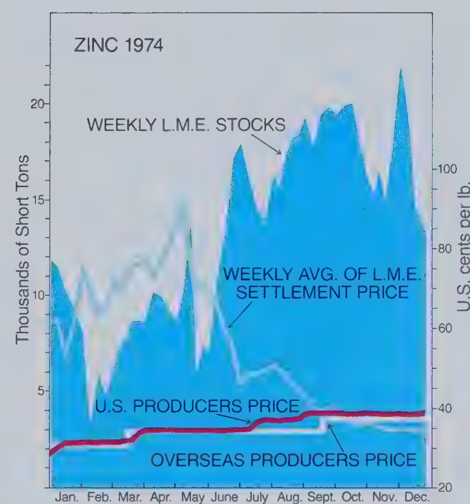
In the second half, automotive sales fell sharply and zinc consumption, which was 5,375,000 tons in 1973 declined to 4,950,000 tons in 1974. With fabricators generally reducing inventories, smelters in Japan and Europe announced lower operating rates. By year-end, producer stocks were rising and U.S. stockpile sales were nil.

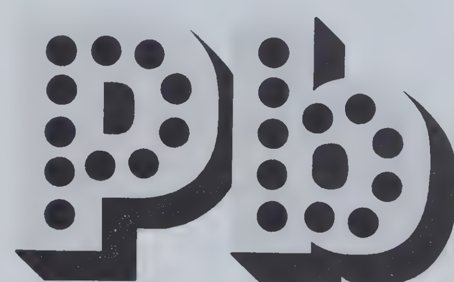
While the 1975 outlook is for lower consumption, an excessive build-up in metal stocks is unlikely as stockpile sales can be curtailed and mine production is equivalent to only 85 per cent of smelter capacity.

During the year prices in the United States rose in two stages from 28-32¢ to 38-40¢. Canadian prices remain about 2¢ lower. Overseas, the producer price increased from 30¢ in January to 35.1¢ in March and 38.3¢ in September.

Merchant and LME prices, which apply only to limited marginal tonnages, remained at unrealistically high levels during the period of metal shortage in the first half before dropping below the producers' prices.







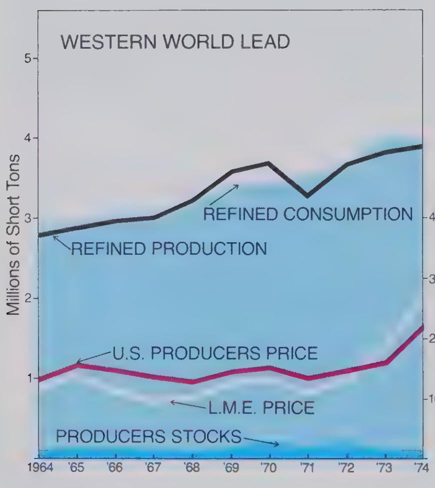
Lead

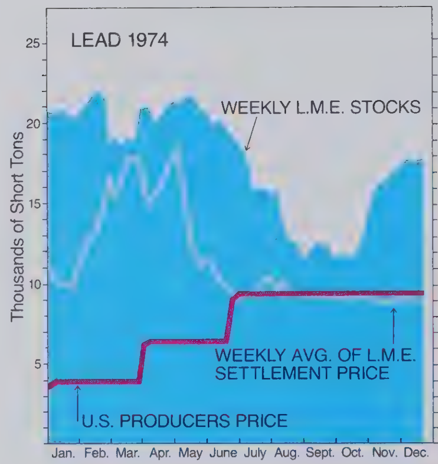
The shortfall in production which occurred in 1972 and 1973 carried over into 1974. Thus, despite a reduction in consumption of 2½% to 3,967,000 tons and an increase in refined production of 2% to 3,925,000 tons, some 230,000 tons of U.S. stockpile sales were absorbed by consumers concerned about supplies.

The major application for lead is electric storage batteries, which accounts for nearly one half of all lead consumption. This market has

been expanding with the total number of vehicles in service and with significant growth in industrial and recreational applications. Thus, it is comparatively unaffected by the decline in new car production. Another significant market is for tetraethyl lead, a gasoline additive, which consumes about 10% of lead worldwide.

As a result of the injury findings against imports of lead from Canada and Australia made by the U.S. Tariff Commission in January, the lead price in Canada has been 3¢ per pound lower than in the United States. It is currently $21^1/_2$¢, compared to $24^1/_2$¢ in the United States, up from $17^1/_2$¢ and 16¢, respectively, at the beginning of the year. The LME price on which overseas sales are based ranged from 25¢ in January to a peak of 35¢ in May and then was reasonably steady around 24¢ in the second half.

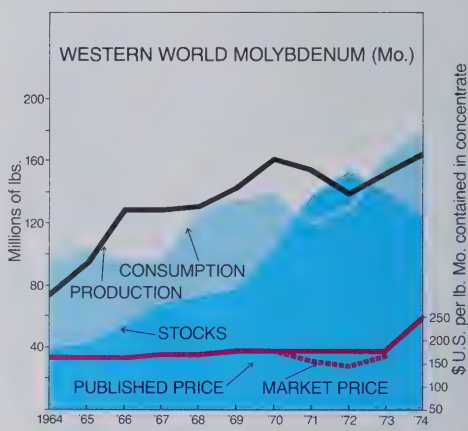




Mo

Molybdenum

Consumption increased by 9% to 180 million pounds as the alloy steel industry operated at full capacity in all major markets. Although mine output rose 8%, producer stocks decreased 13 million pounds to minimum working levels and all remaining GSA stocks were physically absorbed into the market. Prices increased in four stages from $1.72 to the current $2.43 U.S. per pound of molybdenum in concentrate. The market should remain strong into 1975 as any easing in demand will be offset by the need to rebuild inventories.



Fertilizers

Through 1974, demand for food grain was intensified in an effort to replenish depleted world stocks and to help offset disappointing crop yields in many countries. Insufficient production of most fertilizer raw materials due to lack of capacity and energy, intensified a world shortage of finished fertilizers.

Expansion programs now in the construction phase are unlikely to correct the imbalance in 1975 of all three major nutrients — nitrogen, phosphates and potash. Despite these circumstances, scarcity of foreign exchange and continuing high fertilizer prices could result in curtailment of demand in underdeveloped countries.

Sales of Saskatchewan potash at 6.1 million tons fell far short of potential as Saskatchewan Government permission to operate at capacity was not given until mid-year. North American consumption rose 20% and prices were affected accordingly. Between January and October, the price for standard grade went from 38¢ to 57¢ per unit K_2O. Diammonium

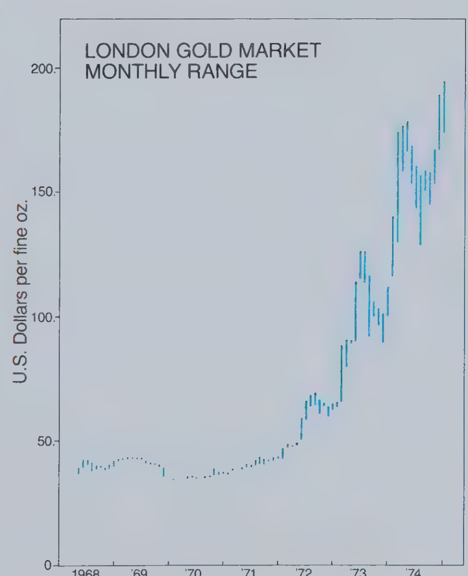
phosphate product prices more than doubled, reflecting raw material price increases and the tight market conditions.

Aluminum
U.S. shipments of aluminum during 1974 were down slightly from the record 1973 level. They were limited in the first half by available supply and declined during the last half because of the economic downturn, particularly in the residential construction and automotive markets.

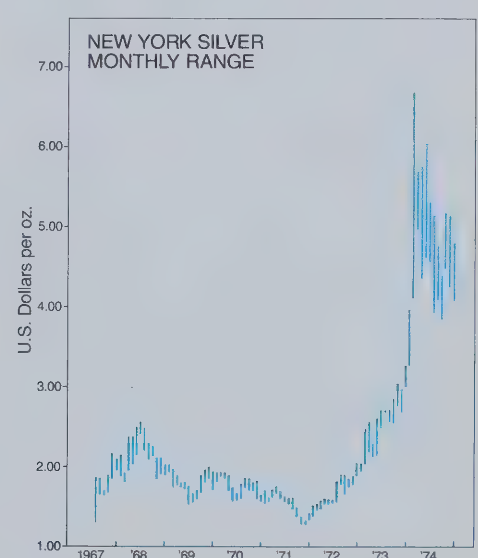
With the end of U.S. price controls in April, producer prices rose from 29¢ to the current level of 39¢ per pound. Spot prices throughout the world reached record levels of up to 51¢ by early in the third quarter, but dropped to the 37-39¢ range at year-end.

Gold
The market was active and highly volatile as concern for currency stability was heightened by the floating of the French franc in January and the revaluation of the Deutschmark.

Thus, despite the lifting of the Arab oil embargo to the United States, the price reached $173 by the end of March. Sizeable liquidations brought the price to $129 in early July before final approval by the U.S. Congress to permit gold ownership by U.S. citizens in 1975 caused a rise to the $150-160 range which held into October. Thereafter, speculative interest increased in anticipation of the new U.S. demand and prices rose to a high of $197.50 in December. The build-up of expectations was so great that the December announcement of an auction of 2 million ounces by the U.S. Treasury on January 6, 1975, only caused a temporary price drop. At the year-end, U.S. citizens did not turn dramatically to gold as expected and only minor quantities were purchased. Prices weakened further to $170 when sales under the U.S. Treasury auction were only 750,000 ounces and mainly to European buyers. However, no significant price weakness is expected in the near term and the gold price could move higher in 1975.



Silver
Prices rose from $3.25 per ounce to $6.70 in February amid heavy speculative activity and thereafter ranged between $3.75 and $5.25. Consumption was down 10% despite strong industrial and coinage demand. The shortfall of 210 million ounces between consumption and new mine production was mainly supplied from secondary sources, demonitized coin and exports from India. The remaining deficit of 20 million ounces is expected to continue and must be met from speculative and trade holdings.



Noranda Sales Corporation Ltd. markets the mine and metal production from 43 companies including 18 members of the Noranda Group. In 1974 the total value of business transactions including sales and purchases amounted to about $1,500 million from 23 products in 45 countries.

The head office in Toronto is responsible for commercial operations in the Americas and the Pacific and its subsidiary in London, England, for Europe, the Middle East and Africa.

Noranda Sales is a 50% partner in Rudolf Wolff & Co. Ltd., a major London Metal Exchange broker and physical trading company. During 1974, brokerage income was at record levels due to the unprecedented high prices of metals and commodities, particularly in the early part of the year. Trading in physical metals, a comparatively new activity, was also very active and progress was made in developing a world-wide position from trading centres in London, Dusseldorf and New York.

In addition to copper from Noranda's own mines, the Noranda and Gaspé smelters treat production from 29 other Canadian copper mines and from overseas. The resultant anode copper is shipped to Canadian Copper Refiners which also processes the output of the Flin Flon smelter of Hudson Bay Mining and Smelting Co. Ltd., blister copper from foreign sources and some secondary materials. The production from CCR, one of the world's largest copper refineries, is distributed in Canada, Europe and the U.S.A. It represents 70% of Canadian and 5.6% of Western world refined copper production.

About half of the copper consumed annually is for electrical conductors with the other half for copper and brass mill products, such as plumbing tube, automobile radiator strip and forged and cast products.

The Valleyfield zinc plant is supplied by the participating companies, Kerr Addison, Mattagami Lake, Noranda and Orchan as well as other eastern Canadian producers. When the current expansion is completed in 1975, annual capacity will be 225,000 tons, representing 31% of Canadian and 4% of Western world zinc metal production capacity.

Metal produced at Valleyfield is marketed throughout North and South America, Europe and the Pacific. It is used for galvanizing to protect steel from corrosion, for die casting to produce decorative and functional automotive, appliance and utility products and in wrought form for architectural and dry cell battery applications.

Lead metal produced by the smelting division of Brunswick Mining and Smelting at Belledune, New Brunswick, is derived from Brunswick's nearby mining division. About 50% is marketed in Canada and the balance is exported to the U.S.A., Europe and the Pacific. Brunswick is the only primary lead metal producer in Eastern Canada and accounts for 29% of Canadian and 1% of Western world output.

Noranda Sales markets some 1.2 million ounces of gold and 15 million ounces of silver produced by 31 Canadian mines. About 90% of the world's annual gold production is consumed mainly for jewellery. Current Western world annual production is 33 million ounces, of which South Africa accounts for 24 million and Canada 2 million.

Apart from the easily recognized applications for silver in coinage and flatware, other major uses are for photographic film and electronic contacts. Canadian mine production of 44 million ounces compares with Western world consumption of 448 million ounces.

The molybdenum sold by Noranda Sales is derived mainly from the mines of Brenda, Endako, Gibraltar and Gaspé and some is purchased from foreign companies. Annual sales total 30 million pounds, about 16% of Western world consumption.

A by-product of Noranda's metallurgical operations is sulphuric acid, which is produced to remove sulphur dioxide from stack gases. The annual volume of 330,000 tons is shipped mainly to the two phosphate fertilizer plants at Valleyfield, Quebec, and Belledune, New Brunswick. In addition to providing an outlet for sulphuric acid, they also serve Eastern Canada and export needs for fertilizer materials.

Potash production from Central Canada Potash is shipped almost entirely to C.F. Industries, Inc., a farmers' co-operative, which represents a large segment of Mid-Western U.S. farmers. Central Canada's production is 11% of Saskatchewan and 3% of Western world output.

During the year, mineral exploration expenditures totalled $17.9 million compared with $11.4 million in 1973. Of the total, 45% was spent in Canada, 26% in the U.S.A., 8% in Australia and 21% in other areas, including Europe, Asia, Africa and South America. The expenditures in Canada remained at about the same level as in 1973 while expenditures in Australia were lower and those in the U.S.A. higher.

The attitudes of foreign governments toward investment in mining ventures by Noranda were assessed. Although investment in some countries is economically unattractive for Noranda, there are other countries which encourage exploration and allow a reasonable profit. Opportunities in these countries are being examined in detail.

In Canada, the U.S.A. and Australia where Noranda has permanent exploration bases, the company attempted to spend at least 50% of its exploration funds on projects which have been developed to the drilling stage, 30% on reconnaissance type projects and the remainder on research, evaluation and administration.

Acquisitions included additional potash acreage in New Mexico, gold properties in Ontario, uranium claims in Saskatchewan and base metal claims in the Yukon, the U.S.A., including Alaska, and in Zambia where Noranda entered into a joint venture with Mindeco, the Government mining company.

The Australian Government issued its policy regarding uranium exploration and mining in the Northern Territories which permits production from only the Ranger orebody at this time with the Government taking 50% of the net proceeds. Through the Australian Atomic Energy Commission, it will be responsible for sales and all new exploration for uranium. No timetable has been set for the development of Noranda's Koongarra deposit.

In ocean mining, substantial progress was achieved in developing new technology for the commercial recovery of manganese nodules from the deep sea bed and the economic extraction of copper, nickel, cobalt and other metals from them. Noranda has a 10% interest in the joint venture group which includes Kennecott Copper, Rio Tinto Zinc, Consolidated Goldfields and Mitsubishi.

Panarctic Oils
Noranda holds a 4.44% interest in Panarctic and has subscribed $5.0 million during the last seven years. Noranda's contribution during 1974 amounted to $900,000. Major developments included the first discovery of commercial quantities of oil at the Benthorn Well on Cameron Island, which was completed as a 500 barrels per day producer and capped. The offshore well at Becla extended the Hecla gas field eight miles to the west and proved the feasibility of offshore drilling using modified conventional drilling equipment supported by artificially thickened sea ice.

During the year 20 wells were completed on Panarctic lands for a total of 129,000 feet of drilling.

The proposed 1975 budget for the participants is $25 million.

Canadian Hunter Exploration
This Company was formed in mid-1973 to continue Noranda's participation in oil and gas exploration and production in the plains and foothills areas of Western Canada. Total expenditures during 1974 were approximately $14.0 million, comprising $5.9 million for land acquisitions and exploratory drilling and $8.1 million for oil and gas field development.

Canadian Hunter participated in the drilling of 26 exploratory wells in 1974, establishing significant gas discoveries in the Kipp and Dyberg areas of Alberta and at Siphon in Northeastern British Columbia. Gas production from Kipp and Siphon will commence early in 1975. To date, 52 producing oil wells have been drilled on lands acquired in or adjacent to existing oil fields. The bulk of current oil production capacity of about 1000 net barrels per day is in the Lloydminster heavy crude field. Proven drilled reserves as of December 31, 1974 were 3 million barrels of oil and 65 billion cubic feet of gas.

Brunswick Mining & Smelting, Bathurst, N.B., crushed ore is concentrated in flotation cells.

Pamour Porcupine, Pamour, Ont., underground scoop tram loads gold-bearing rock.

Mattagami Lake Mines zinc concentrate being unloaded from gondola cars at Canadian Electrolytic Zinc, Valleyfield, Que.

Quebec Iron Foundries, Mont Joli, Que., machining cast-iron foundry products.

Kerr Addison Mines, Virginiatown, Ont., surface intake supplies ventilation for underground.

Quebec Iron Foundries, Noranda, Que., casting grinding balls.

Brunswick Mining & Smelting, Belledune, N.B., sinter plant.

Canadian Electrolytic Zinc, Valleyfield Que., equipment maintenance.

Canadian Copper Refiners, Montreal East, Que., stripping starting sheets of pure copper.









Horne Mine
(wholly-owned)
Ore mined totalled 477,400 tons averaging 2.57% copper and 0.147 ounces of gold per ton. Fluxing ore produced totalled 376,500 tons from the Don Rouyn pit and 13,600 tons of high-grade flux from the Norzone property.

At December 31, 1974 ore reserves were as follows:

	Tons	Cu%	Au oz/ton
Horne Mine	400,000	1.74	0.151
Chadbourne	1,100,000	—	0.111
Magusi	1,569,000	2.10	—
	468,000	8.83	—
New Insco	1,148,000	2.11	—

There is sufficient ore to maintain the Horne mining operation into 1976. Development of the Chadbourne gold deposit is proceeding on schedule. Planning to bring the Magusi-New Insco ore bodies into production is underway.

The concentrator treated 390,000 tons of sulphide ore and 235,000 tons of reactor and other slags. Copper concentrates produced totalled 71,500 tons and 57,300 tons respectively.

Smelter
The smelter complex operated continuously during the year. Construction of a 94 tons-per-day oxygen plant was begun.

	Material Smelted		Copper Content of Anodes Produced
	Noranda	Custom	
	(Tons)	(Tons)	(Tons)
1974	730,000	839,000	269,000
1973	725,000	825,000	260,000
1972	705,000	780,000	236,000
1971	724,000	825,000	233,000
1970	769,000	777,000	211,000

The reactor expansion project has been suspended for restudy due to escalated costs and uncertainty of supply of custom concentrate.

Geco Mine
(wholly-owned)
Ore mined and treated amounted to a record 1,827,000 tons grading 1.72% copper, 4.72% zinc and 1.56 ounces of silver per ton. Concentrates produced contained 29,200 tons of copper, 71,000 tons of zinc, 1,700 tons of lead and 2,058,000 ounces of silver.

Ore reserves at year-end, were decreased to 28.6 million tons with average grades of 1.87% copper, 3.69% zinc and 1.59 ounces of silver per ton.

Operations were again hampered by shortages of miners and skilled tradesmen but the mill operated at capacity throughout the year. This was achieved by reliance on bulk mining sources and postponement of extraction from labour-intensive narrow ore occurrences and remnants.

Major capital additions included completion of the first of two phases in the treatment of waste water for environmental control, and construction of 30 houses in the town of Manitouwadge.

Alternate stock piling and reclamation of zinc concentrate was necessary because insufficient rail cars were available and, at year-end 3,100 tons remained at the mine. Also, a labour strike at the custom lead smelter resulted in 1,100 tons of lead-silver concentrate inventory at the mine.

Gaspé Copper Mines
(98.9% interest)
Earnings for the year were $184,000 compared with $1.2 million in 1973. Operating inexperience resulting from the transfer, in late 1973, of many senior employees to more responsible positions in which they were unskilled, and plant downtime for necessary equipment modifications in the expanded plant, were responsible for below capacity operation in all plant departments. In addition, rapidly rising costs seriously reduced earnings.

Needle Mountain
The mine produced 1,230,000 tons of ore, including 128,000 tons from the open pit, averaging 1.09% copper. Ore reserves decreased approximately by the tonnage mined to 22,900,000 tons averaging 1.33% copper.

The concentrator produced 43,500 tons of concentrate containing 11,530 tons of copper and concentrate containing 13,200 lbs. of molybdenum.

Copper Mountain
The open pit produced 9,317,000 tons of ore averaging 0.55% copper while 22,000,000 tons of waste, low-grade ore and oxide ore were removed. Sulphide ore reserves decreased by the tonnage mined to 212,000,000 tons averaging 0.38% copper while oxide ore reserves remained at 34,000,000 tons averaging 0.45% copper.

The concentrators produced 159,300 tons of concentrate containing 39,800 tons of copper and concentrate containing 54,200 lbs. of molybdenum.

Smelter
Approximately 32,800 tons of concentrate containing 7,900 tons of copper were diverted elsewhere for treatment during 1974. The acid plant produced 154,600 tons of sulphuric acid.

	Material Smelted		Copper Content of Anodes Produced
	Gaspé	Custom	
	(tons)	(tons)	(tons)
1974	253,000	90,300	69,700
1973	176,900	99,800	49,300
1972	236,800	118,000	63,800
1971	221,800	156,000	73,800
1970	227,500	141,500	69,900

Canadian Copper Refiners

(wholly-owned)

An infrared scanner to detect short circuits in the electrolytic cells was put in regular use in one of the two tank houses.

Natural gas replaced propane as fuel for the shaft melting furnaces because of cost and supply problems with propane.

A Venturi scrubber was installed to collect copper fume from the combustion gas of a shaft melting furnace. A baghouse is being installed to remove particulate matter from the combustion gas from an anode furnace and should be operating by May 1975.

An automated anode casting wheel has been installed and will be in regular operation early in 1975.

Construction of the building to house the equipment for the semi-continuous casting of cakes and billets was completed. This new casting operation should begin in late 1975.

Refined Metal Production

	Copper (tons)	Silver (ounces)	Gold (ounces)
1974	427,000	19,413,000	352,000
1973	383,000	14,599,000	351,000
1972	376,000	14,165,000	377,000
1971	342,000	12,885,000	405,000
1970	349,000	12,447,000	424,000

Bell Copper

(wholly-owned)

Pit production was 4,500,000 tons of ore grading 0.524% copper and 2,000,000 tons of waste stripping. Ore treated averaged 12,332 tons a day compared with 11,272 in 1973. Copper recovery improved to 88.2% resulting in 79,700 tons of concentrate containing 20,800 tons of copper and 28,700 ounces of gold. Shipments of concentrate totalled 84,640 tons, of which 69,920 tons were smelted at Noranda, Quebec. The greater metal volumes and improved prices provided higher revenue than forecast but this was largely offset by substantial increases in wages, supplies and service and provision for British Columbia mining royalties. Shortages of skilled tradesmen and operating personnel hampered the operation until late in the year. Twenty-two additional housing units were completed in the village of Granisle.

Year-end ore reserves for the original pit design were 34,390,000 tons grading 0.489% copper and 0.012 ounces of gold a ton at a waste-to-ore stripping ratio of 0.465 to 1. Studies indicate that under more favourable tax and economic conditions, the pit can be expanded to 79,000,000 tons grading 0.488% copper and 0.012 ounces of gold a ton at a stripping ratio of 1.537 to 1.

Boss Mountain Mine

(wholly-owned)

Production resumed in January and ore milled totalled 493,900 tons grading 0.20% molybdenum. Recovery averaged 91.4% resulting in 1,623 tons of concentrate containing 1,821,110 pounds of molybdenum.

Difficulties in acquiring a skilled and stable workforce persisted until late in the year when a satisfactory production rate was reached. However, the grade of a new stringer zone was erratic and disappointing. Lower production and rising costs were offset somewhat by increases in the price received for molybdenum.

A surface exploration program last summer requires metallurgical and engineering studies to complete an evaluation of the property's potential.

Brunswick Mining And Smelting

(64.2% interest)

Net earnings in the year were $17.1 million compared with $9.9 million in 1973. A two-month strike in the second quarter, illegal rotating walkouts in the first quarter and rapidly rising costs were more than offset by higher metal prices and increased smelter production.

The concentrator treated 2,608,000 tons of ore, averaging 9.7% combined lead and zinc compared with 3,288,000 tons averaging 9.8% in 1973. Construction, shaft sinking and mine development to increase production from No. 12 mine to 11,000 tons a day began.

When completed in the late 1970's this expanded production will more than offset the effect of reduced operations in the number 6 open pit mine. Due largely to inflation, the estimated expenditure has been revised from $28.5 million to $48 million, of which some $10.9 million was spent or committed at year end.

Ore Reserves					
Zinc-Lead	Tons (000)	Zinc %	Lead %	Silver oz.	Copper %
No. 12 Mine					
Proven	64,466	9.21	3.74	2.74	0.27
Probable	22,604	9.57	4.08	2.96	0.30
No. 6 Mine					
Proven	2,379	4.91	1.77	1.78	0.42
Copper					
No. 12 Mine					
Proven	9,474	1.13	0.40	0.85	1.11

The smelter processed stockpiled lead concentrate during the labour difficulties at the mine and was shut down for one month in the third quarter to complete the second-stage conversion to a lead smelter.

Production		1974	1973
Zinc			
Concentrate	—tons	256,000	330,800
Copper			
Concentrate	—tons	20,300	19,900
Refined Lead	—tons	44,200	34,450
Sulphuric Acid	—tons	117,000	100,200
Silver	—ozs.	2,085,000	1,255,000

Brenda Mines
(50.9% interest)
Net profit declined to $8.4 million compared to a restated net profit of $16.7 million in 1973. Gross revenue of $43.0 million was essentially the same as that of 1973 as higher metal prices offset lower metal production. In the final six months of 1974 revenues decreased by $6.6 million to $17.2 million while operating costs increased by $1.5 million to $9.9 million. This reflects the deterioration of the London Metals Exchange copper price, substantial increases in operating costs and finance expense amortization but mainly the high level of taxation on resource companies. The results include provision of $1.9 million for British Columbia's mineral royalties.

Production was 9,550,000 tons of ore averaging 0.186% copper and 0.051% molybdenum, as well as 4,400,000 tons of low-grade ore for stockpile. Waste stripping totalled 2,700,000 tons. Ore treated in the concentrator averaged 26,163 tons per operating day. Metal recoveries were 85.9% for copper in 51,365 tons of concentrate and 78.5% for molybdenum in 6,811 tons of leached concentrate. Production rates and recoveries were adversely affected by shortages of grinding media and interim high clay content in the mill feed. One grinding circuit is now operating under a computer control system with encouraging results. Most of the copper concentrate was shipped to Japan during 1974. Molybdenum sales exceeded production by 30% reducing inventory to 2.98 million pounds from 5.3 million pounds at December 31, 1973. During the year $27.3 million Secured Income Bonds were retired leaving a balance of $2.5 million outstanding.

Ore reserves were reduced to 127,000,000 tons averaging 0.177% copper and 0.046% molybdenum.

The sales agreement with a Japanese buyer for copper concentrate expires in May, 1975 and may not be renewed. Possible alternative arrangements for sale or treatment of the concentrate production are being reviewed.

Central Canada Potash
(51% interest)
The trial hearing, to challenge the constitutionality of the Saskatchewan prorationing program and for damages suffered under it, was completed in the Court of Queen's Bench in November. At year end, a decision had not been handed down but, regardless of the outcome, it is expected that the decision will be appealed.

In July, Saskatchewan issued production licences to all producers allowing operation at rated capacity. The move had little effect upon total output because the industry, curtailed for two years by the flat prorationing program, was critically short of qualified workers.

In November, Saskatchewan imposed a new potash reserve tax calculated to increase provincial revenues from potash to about 25% of the industry's gross revenue. In combination with other mining royalties, fees and taxes, the impact is confiscatory. Potash industry profits are now taxed at the oppressive rate of 84% and the tax structures are such that the rate will increase as potash prices rise.

An $8 million program to provide additional compaction capacity to manufacture premium grade product, was suspended at year end. The reasons were the unfavourable economic climate, including the rising cost of construction, slow delivery of equipment, scheduling problems and the low productivity of the construction labour force.

Underground linear advance was 30 miles for a total of 126 miles since mining began in 1969. Some 2,721,000 tons of ore averaging 26.7% K_2O equivalent were treated. Reserves at year end were 587,000,000 tons of recoverable ore averaging 27.5% K_2O equivalent. Shipments totalled 1,187,000 tons of muriate and year-end inventories of 4,300 tons were the lowest on record, reflecting strong market demand.

Langmuir Property
(51% interest)
Ore milled averaged 1.5% nickel from 221,450 tons treated, somewhat below the rated capacity of the plant. Some 30,150 tons of concentrate containing 5,409,300 pounds of nickel were produced. Minor changes in the concentrator circuit have improved operating flexibility and treatment capacity.

Underground examination and drilling information clarified pre-production surface drilling data. As a result, ore reserves were reduced to one million tons with average grade of 1.7% nickel, including an allowance for dilution.

Pamour Porcupine Mines
(48.8% interest)
Net earnings increased to $4.7 million from $2.8 million in 1973, reflecting the first full year of production from the Schumacher Division. Higher gold prices were largely offset by lower gold content in the ores, the impact of steeply-rising costs and increased taxes. Sales of 152,237 ounces of gold from all sources averaged $154.13 per ounce.

Production was 131,078 ounces of gold in bullion and 15,191 tons of copper concentrate containing 4,084 tons of copper, 12,183 ounces of gold and 59,050 ounces of silver.

Ore treated at the No. 1 mill included 859,500 tons from the Nos. 1, 2 and 3 mines and 73,000 tons of development material from other properties on a toll basis. At the Schumacher mill, 706,940 tons were treated in the copper circuit and 214,130 tons in the gold circuit.

A capital project to increase capacity of the No. 1 mill to 3,000 tons a day encountered delays but completion is expected by March 1975. The higher price for gold prompted development of a small open pit on low-grade material at No. 1 mine and reactivation of stope development at the No. 2 mine.

Ore reserves for Pamour Nos. 1, 2 and 3 mines were maintained at 2,500,000 tons in total, with lower averaged grade of 0.137 oz. gold per ton. At the Schumacher Division reserves were reduced to 2,300,000 tons averaging 0.66% copper and 0.034 oz. of gold per ton plus 422,700 tons averaging 0.249 oz. gold per ton.

Exploration in the Porcupine Area continued. Diamond drilling on the Porcupine Peninsular and Romfield options confirmed gold bearing zones of limited interest.

Orchan Mines
(interest 45.1% direct, 5.7% indirect)
Net earnings for the year were $5.1 million compared with $4.4 million in 1973. Four dividends totalling $2,787,000. were paid.

Planned production and development programs at the four mine sites were adversely affected by the shortage of skilled labour.

Ore treated in the Orchan mill totalled 364,030 tons including 219,865 tons averaging 6.96% zinc and 1.00% copper from the main mine and 144,165 tons averaging 1.47% zinc and 1.45% copper from the Garon Lake mine.

Ore reserves were reduced to 1,350,750 tons averaging 8.8% zinc and 1.1% copper at the Orchan mine, and to 215,120 tons averaging 1.5% zinc and 1.8% copper at Garon Lake.

At the Norita Division, shaft sinking advanced to 993 feet below surface and three level stations were cut. Previous diamond drilling had indicated some 1,637,000 tons of ore averaging 7.6% zinc and 0.7% copper without allowance for dilution. Production is scheduled for 1976.

At the wholly-owned Bell Allard subisidiary Radiore No. 2 property, the ramp decline was completed but further development and production plans have been deferred pending higher copper prices. Earlier drilling indicated 140,000 tons of ore averaging 2% copper and 1% zinc.

Empresa Fluorspar
(interest: 74.6% direct, 14.6% indirect)
Fluorspar shipments from 49% owned Cia Minera Las Cuevas, in Mexico, reached a record 375,000 tons including 80,000 tons of acid grade concentrate, reflecting a strong demand from steel, chemical and aluminum industries.

Net earnings reported on the basis of dividends received from Las Cuevas decreased to $0.9 million from $1.1 million in 1973.

Empresa Minera De El Setentrion
(60.5% interest)
Setentrion treated 127,700 tons of ore averaging 0.5 oz. gold per ton. During the year, proven ore reserves declined 95,000 tons to 220,000 tons of 0.5 oz. grade while indicated reserves increased by some 33,000 tons of similar grade. Satisfactory progress was made toward the hot water control necessary prior to deeper mining in the Panteon vein, the main source of ore.

Costs were higher throughout, particularly for diesel-generated

power but, due to higher gold prices, earnings were maintained at $3.2 million, the same as in 1973.

Kerr Addison Mines
(interest: 41.3% direct, 2.5% indirect)
Net profit for the year was $15.3 million or $1.61 a share compared with $9.9 million, or $1.04 in 1973. The 1974 profits reflect higher gold prices, improved investment income and a gain of $3 million on advanced royalty receipts from the assignment of Fernandez Joint Venture uranium reserves. Dividends of $6.7 million, or 70¢ a share, were paid in 1974. The year-end value of net current assets and investments at market value decreased to $9.06 from $12.74 a share in the previous year.

Production at the Kerr Addison mine amounted to 108,820 ounces of gold from 277,000 tons of ore with a grade of 0.40 ozs. per ton. Ore reserves at December 31, were 1,559,000 tons with a grade of 0.47 ozs. of gold per ton compared with 1,351,000 tons with a grade of 0.54 ozs. per ton at December 31, 1973.

The Normetal mine produced 19.3 million lbs. of zinc and 4.2 million lbs. of copper in concentrates and is expected to operate into the second quarter of 1975.

The Joutel mine, 63% owned, produced 10.4 million lbs. of zinc and 1.8 million lbs. of copper in concentrates and is expected to operate to the end of 1975.

The Blue Hill mine, 60% owned, produced 23.0 million lbs. of zinc and 2.6 million lbs. of copper in concentrates.

Earnings from the 21% interest in the Icon Sullivan Joint Venture were similar to 1973, and operations are expected to terminate during the first quarter of 1975.

The uranium property of Agnew Lake Mines was reopened for a large-scale trial of uranium extraction by acid leaching of broken ore in underground stopes and in surface stockpiles. The program is expected to take two years and cost an estimated $3 million.

In the Vangorda Creek area of the Yukon, Kerr Addison (60%) and A.E.X. Minerals Corp. (40%) have drilled approximately 50,000 feet in 48 holes in lead-zinc-silver mineralization in what has been called the Grum deposit. Results of the drilling on a 200 by 400-foot pattern have indicated the possibility of a significant tonnage of zinc-lead mineralization. A large percentage of this ore would have to be recovered by underground mining.

Mattagami Lake Mines
(interest: 34.1% direct, 8.6% indirect)
Consolidated net earnings totalled $40.1 million, or $3.03 a share, compared with $33.5 million or $2.53 a share, in 1973. Operations were improved and metal prices were higher.

The adverse effect of significant increases in income and mining taxes, higher operating costs and lower copper price became evident in the fourth quarter with lower earnings than in the same period of 1973 or the third quarter of 1974. A two-for-one share sub-division was approved by shareholders at a Special General Meeting April 11. Dividend payments were $1.27½ per new share compared with $0.75 in 1973.

Ore treated at the Matagami, Quebec, operation amounted to 1,407,000 tons, 3,854 tons per day, averaging 7.50% zinc, 0.62% copper, 0.88 ounces of silver and 0.017 ounces of gold per ton. Metal recoveries improved to 75.6% for copper in 27,150 tons of concentrate and 91.3% for zinc in 183,560 tons of concentrate. New installations included a zinc regrind mill and a process control computer which will increase flotation process efficiency. The latter will become fully functional during the first half of 1975.

Ore reserves totalled 12,000,000 tons averaging 8.7% zinc, 0.66% copper, 0.98 ounces of silver and 0.015 ounces of gold per ton.

At the Lyon Lake Division, Sturgeon Lake area of northwestern Ontario a mining plant is being erected, the shaft collar poured and shaft sinking is scheduled to start by April 1, 1975. Earlier drilling indicated 3,100,000 tons grading 6.20% zinc, 1.15% copper, 0.60% lead, 3.30 ounces of silver and 0.11 ounces of gold per ton.

At Mattabi Mines in Northwestern Ontario, 3,860,000 tons was mined in the open pit for a waste-to-ore stripping ratio of 2.4 to 1. The concentrator treated 1,139,000 tons, 3,120 tons per day, averaging 8.81% zinc, 0.91% copper, 0.91% lead and 4.3 ounces of silver per ton. Improved flotation resulted in higher recoveries for the zinc, copper and lead circuits. The copper/lead separation process remained difficult to control, particularly during periods when slightly oxidized ore was reclaimed from stockpile.

Ore reserves were reduced by the tonnage milled to 11,059,000 tons averaging 6.51% zinc, 0.74% copper,

0.64% lead, 2.42 ounces of silver and 0.007 ounces of gold per ton. Planning for the development and mining of the underground portion of the orebody is continuing.

The high turnover of operators and shortage of equipment mechanics adversely affected operating efficiency. Thirty additional houses were built in Ignace for sale to employees.

At Canadian Electrolytic Zinc, Valleyfield, P.Q., hourly-rated employees struck the plant for 44 days. The walkout, which was legal and orderly, was settled May 29 by a three-year collective agreement. The plant operated at about four per cent above rated capacity for the remainder of the year.

Total production was 134,800 tons of zinc and 772,000 pounds of cadmium.

The year was difficult for the construction industry in Quebec, and the expansion project was seriously affected. The low productivity of construction workers together with extraordinary delays in equipment deliveries will result in deferring the start-up date by at least two months to September 1975.

St. Lawrence Fertilizers' production fell some 60% from 1973 because of a strike which began May 1 and continued through yearend. Injunctions ruling that the strike was illegal and requiring that employees return to work were not obeyed.

Although the cost of raw materials has increased considerably, improved product prices have maintained profit levels and the outlook for 1975 is encouraging. During 1974 the plant consumed 48,000 tons of a by-product of acid from Canadian Electrolytic Zinc.

Federated Genco, a 40% owned producer of metals and alloys, experienced a profitable year. Because several of the alloys are used in the automotive industry, the outlook for 1975 is uncertain.

Belledune Fertilizer
(wholly owned)
Production of diammonium phosphate reached 220,000 tons, slightly more than 1973 output. Product prices improved and there was a satisfactory increase in earnings, despite significant increases in raw material costs. The new storage buildings for phosphate rock and diammonium phosphate were put into service during the second half of the year.

Alberta Sulphate
(wholly-owned)
This company acquired in September, recovers, purifies and sells sodium sulphate from a natural deposit in Horseshoe Lake, Alberta, southeast of Edmonton and some 25 miles west of Provost. It began operation in mid 1969 and 1974 output was 73,000 tons. Most of the product is sold to pulp producers in British Columbia but some is also shipped to pulp mills and detergent manufacturers in Eastern Canada.

The deposit contains sufficient reserves for more than 15 years production.

Placer Development
(interest: 31.5% direct, 1.7% indirect)
Placer's 1974 earnings were $42.5 million, or $3.54 a share, compared with $71.8 million, or $5.98 a share, in 1973. Lower earnings resulted from reduced sales and increased federal and provincial taxes for Gibraltar. Gibraltar's earnings fell to $1.49 a share compared with $4.60 a share in 1973.

Although copper sales and prices have declined, molybdenum sales and prices for production from the Endako Mine continue strong, providing a major contribution to earnings.

In April, Placer's wholly-owned subsidiary, Placer Amex, began development of the 51% owned open pit mercury property in northern Nevada. Total cost will be $10 million.

Craigmont
(interest: 19.7% direct, 12% indirect)
Earnings at Craigmont were $7.4 million for the fiscal year ended October 31, compared with $10.0 million for the previous year. Working capital increased to $18.8 million from $15.2 and dividends of $0.75 per share were paid. The reduced earnings were the result of lost production during a strike in the first quarter. Concentrator throughput for the year was 1,500,000 tons. Geological ore reserves at fiscal yearend are estimated at 8,600,000 tons with a grade of 1.84% copper. This is sufficient to maintain operations at the present level for four to five years.

In fiscal 1975, half of the concentrate production will be sold in the United States at the U.S. producer price.

Gaspé, Que., soil analysis.

Brunswick Mining & Smelting, Belledune, N.B., flame spectroscopy.

Noranda Research Centre, Pointe Claire, Que., assembling miniature electronic sub-circuit.

Research

Noranda's Research Centre, in Pointe Claire, P.Q., was established in 1963 to develop new technology for the extraction and fabrication of metal and forest products. Research projects are underway in such diverse fields as the improvement of the working environment for underground miners, a study of the benefits of molybdenum as an alloying element in pipe-line steel, the use of sawmill wastes, and the control of thiosalts in the liquid effluents from mineral concentrators.

The Centre also administers a graduate fellowship program for students in the natural sciences and engineering in Canadian universities. Five graduate students are now studying on Noranda fellowships.

A major expansion of the laboratory was completed in 1974. At year-end, the staff totalled 133 persons, of whom 53 were scientists. Operating expenditures for the year were $2.3 million.

Environmental Control

Long-range environmental plans are being developed at all operating locations for controlling and minimizing the volumes of water used for both internal and external recycling, segregation of mill effluents, treatment of discharges, and for revegetation of storage sites. Pilot plant testwork on waste water streams has been undertaken at two additional mining sites. At one of these, sufficient data has been obtained to design the first full-size water treatment plant and this is expected to be in operation at Geco within the next twelve months.

Environmental research projects sponsored during the year included: the investigation of cyanide destruction in co-operation with the Federal Department of Energy, Mines and Resources; thiosalt formation, analysis and control methods by the Noranda Research Centre, and the development of better methods for establishing vegetation on acidic wastes which has been undertaken by the Crop Science Department of the University of Guelph.

The investigation of water treatment technology for heavy metals removal in the joint "Government-Industry" pilot plant at the Brunswick minesite has been largely completed. The more complicated portion of the study, relative to thiosalt destruction by biodisc and ozone technology, is being continued into 1975.

Norandex, Cleveland, Ohio, assembling aluminum door frame.

Northwood Pulp, Prince George, B.C., stockpiling pulp chips.

Norandex, Cleveland, Ohio, aluminum strip for siding.

Noranda Metal Industries, New Westminster, B.C., inspecting copper tubing coils.

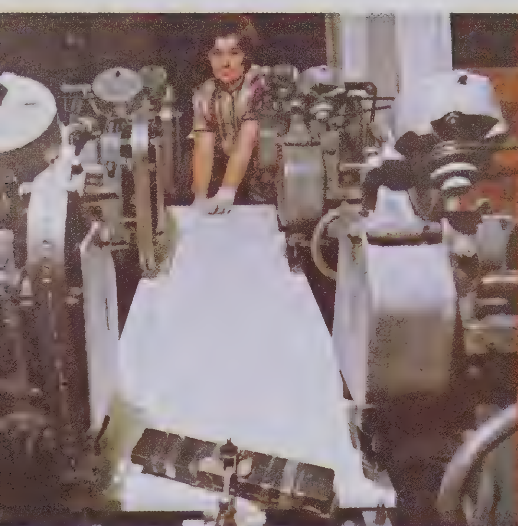
Norandex, Cleveland, Ohio, extruded aluminum components.

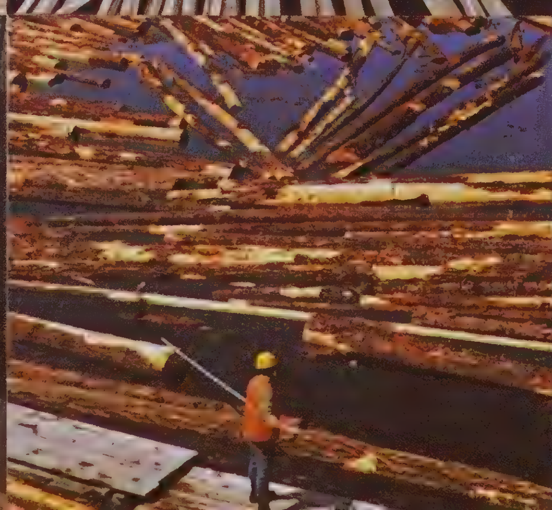
Northwood Pulp & Timber, B.C., log sorting.

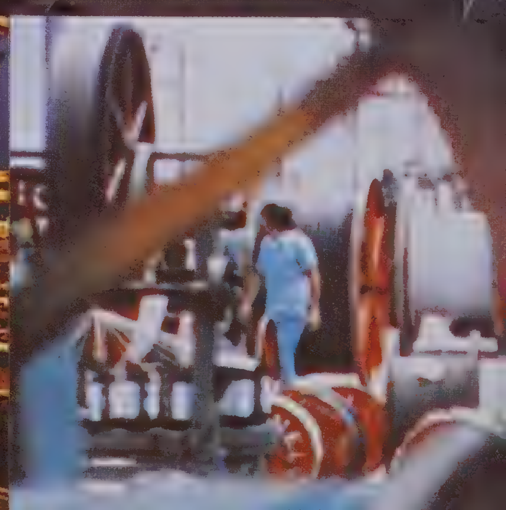
Northwood Mills, Okanagan Falls, B.C., finished spruce lumber.

Atlantic Foundries, Bathurst, N.B., continuous casting of grinding media.

Iconel, Valencia, Venezuela, manufacturing electrical cable.







Canada Wire And Cable
(wholly-owned)
The earnings of this Company reached record levels once again reflecting the rationalization of some years ago, the spread of international operations and strong demand for the Company's main products. The Company's recognized excellence and long devotion to high technology gives it a significant position in the important and growing electrical distribution field as well as opportunities to participate in related high potential industrial operations. Canada Wire operates eleven plants and seven warehouses in Canada employing over 2,800 people. Its international activities comprise varying minority positions in companies in nine countries. Of these, performance in every case but one has met or exceeded expectations and in the long run, these international operations may prove the major earnings contributors.

Planning is proceeding for one signficant new investment in the Middle East and expansions are underway in Australia and Nigeria. In addition, the Company's domestic business requires more capacity and another building wire plant will be established in Ontario. Otherwise, capital expenditure in 1975 will be restricted to maintaining state-of-the-art production capability.

Some 95,000 tons of metal were processed during the year.

Noranda Metal Industries
(wholly-owned)
Operations were profitable, but considerably below potential due to depressed sales to the automotive and construction industries and a six-month strike at the tube plant in New Westminster, B.C.

A 49% investment was made in a copper tube mill in Medellin, Colombia, the Company's first manufacturing venture outside North America which may be followed by another currently under study.

Work is progressing on the Special Metals Division plant being constructed at Arnprior, Ontario for production of tubes for nuclear reactors. This venture into higher technology production is expected to provide a more stable earnings base than the traditional brass mill business.

Product processed in 1974 exceeded 54,000 tons.

Noranda Aluminum
(wholly owned)
Notwithstanding a 104-day strike, aluminum production for the year was 71,000 tons or 101% of rated capacity. Of this, 7,500 tons were converted in the Company's ACSR cable plant and 25,000 tons shipped to Norandex.

At mid-year, it was decided to double the plant's capacity at an estimated cost of $82 million. This should result in greatly increased plant operating efficiencies. In addition, the company acquired a 38.5% interest in Frialco which has a 51% participation in a bauxite-alumina operation in the Republic of Guinea, West Africa. Annual production is 650,000 metric tons of alumina per year.

Norandex
(wholly-owned)
This aluminum fabricating-marketing subsidiary began 1974 enjoying the crest of the late housing boom. The following decline severely curtailed operations and profits were seriously eroded. Nevertheless, the Company is continuing to improve its warehousing facilities, including adding complementary product lines, to further utilize its 85 warehouses. Sales, on a test basis of other Noranda-produced construction materials, will be ventured in 1975.

A greater share of the remodeling market than currently enjoyed is a prime goal. However, it now appears that sales and profits will be depressed if new construction activity does not pick up early in 1975.

Quebec Iron Foundries
(wholly owned)
This Company's four foundries had a mixed but overall satisfactory year. Ocean Foundries in Surrey, B.C. suffered reduced production due to major breakdowns of equipment while Noranda Foundry's principal difficulty was a shortage of scrap supply and costs. The Mont Joli Foundry was shut down by an 11-week strike and the new ball plant was delayed in start-up due to construction union problems. Atlantic Foundries in Bathurst, N.B. was severely affected by labour disruptions. The Company has entered the used car compacting and shredding business in Moncton, to obtain raw material for the Bathurst and Mont Joli Foundries.

In all, 54,400 tons of castings were produced, 90% of which was from recycled material.

Wire Rope Industries
(40% interest)
Notwithstanding the mid-year decline in resource and construction activity, wire rope volume and profit exceeded any previous year. The Company completed its move to new facilities in Pointe Claire, Quebec and proceeded with construction of a synthetic rope plant in Boucherville.

Its twin company, Bridon-American, made satisfactory progress in its Exeter, Pa. operations but, most importantly, acquired the ropery of Jones & Laughlin Steel in Muncy, Pa. This acquisition accelerates the planned growth of the Company moving it into fourth place in the U.S.

As a consequence of the funding for these expansions, Wire Rope Industries and Bridon-American each became owned 51.4% by Noranda Mines and 48.6% by Bridon Ltd. of England effective January 9, 1975.

Total production for 1974 was 27,000 tons for WRI and 36,600 tons for Bridon-American.

Grandview Industries Ltd.
Sales increased substantially over 1973 and earnings more than doubled those of any previous years. A second foam plastic operation located in Montreal was acquired.

A strike at the Langley, B.C. operation shut down that plant for most of the year and raw material shortage kept production below capacity at the plants in Edmonton, Weyburn, Rexdale, Mississauga and Brampton. In excess of 20,000 tons of raw materials were processed.

Canplas Industries
(50% interest)
Sales and earnings of this plastics fittings operation increased considerably over 1973. Both plants operated below capacity due to raw material shortages early in the year and shrinking demand later as housing starts decreased severely.

Northwood Mills
(wholly owned)
The disappearance of the lumber market adversely affected all divisions with both volumes and margins being lower in the warehousing and distribution activities. Although Northwood was the second largest exporter of lumber out of the Port of Vancouver, reduced volumes in the domestic market and lower commissions resulted in the Sales Division doing no better than breaking even.

The company's four sawmills were closed in October, with two being reopened in early 1975. The manufacturing division did not recover from the loss of twelve week's operations due to strike action.

Fraser Companies
(54.6% interest)
Activities of this Company were consolidated from April 9th and proved a most welcome strengthening. The Company enjoyed by far its most profitable year, earning $6.35 per share. Total paper, board, and market pulp sales were 425,500 tons for the 12 months. Operations ran smoothly through the year including the start-up of a new sawmill at Plaster Rock, New Brunswick.

The main attention of Fraser management was given over to consolidation of the long-range plans to expand and modernize the Edmundston-Madawaska complex, which will result in increased production, energy conservation, and improved environmental control. The first phase of this program, in the form of a refuse preparation and burning system, is

now underway. This will be followed closely by an additional boiler to incinerate spent cooking liquor, with ancillary chemical recovery facilities. Chemical plant conversion, additional digesters, and allied renovations are also projected. This program will entail major capital expenditures over a five-year period.

It is unlikely that 1975 can duplicate 1974 results due to the continuing weakness of the lumber market, and to a softening in demand for paper.

Northwood Pulp & Timber
(50% interest)
The company's plans for the year were not realized because of a three-week illegal strike by mechanics in the pulp mill, boiler tube failures requiring six weeks for repairs, a railroad strike eliminating chemical supplies for four weeks and a decline in the lumber market. As a consequence, the company recorded a 75% shortfall from planned earnings.

Pulp markets remained strong through the year and prices increased substantially. Nevertheless, at present levels, they are inadequate to justify new investment and only barely adequate to sustain the wood product component of integrated operations.

The company completed its 32-acre primary effluent clarification lagoon and proceeded with equipment rationalization at its Houston sawmill. Negotiations for additional timber appeared satisfactory following the award to the company by the Minister of Lands, Forests and Water Resources of quota in the Houston area. Changes in stumpage appraisal methods, uncertainties in timber holdings and, latterly, the advent of a marketing board to dictate chip prices have created an unfavourable investment climate for forest products in British Columbia.

Northwood's production in 1974 aggregated 208,000 tons of Kraft pulp, 447,000 M FBM of lumber, 282,000 BDU chips.

The 50%-owned B.C. Chemicals completed its chlorate expansion, as well as its crude tall oil plant. Current conditions indicate these operations will do much better than originally expected. Total chlorate production was 14,700 tons.

B.C. Forest Products
(28.9% interest)
The company posted its second best year for earnings which were $21.1 million or $2.73 per share compared with $25.4 million or $3.33 a share in 1973. This reflected the strength in pulp and paper, as well as a substantial component of coastal-based wood products which held markets longer than did interior production.

Important changes were announced by the British Columbia Government respecting coastal timber tenure, chip pricing and new stumpage charges. The overall effect of these on BCFP remains to be quantified. However, they are unlikely to improve the economics for the Company.

Capital expenditure was restricted to completion of a third sawmill at Mackenzie, acquisition of a coastal smallwood mill on Tilbury Island and normal items of pollution abatement,maintenance or plant upgrading.

Northwood Mills

	Production	Sales		
	Lumber M FBM	Lumber M FBM		Panel Board MSM 1/16″
	Mills	Mills	Bldg.	Bldg.
	(000's)	(000's)	(000's)	(000's)
1974	110	660	396	1,044
1973	194	701	368	888
1972	187	663	496	672
1971	85	477		
1970	73	411		

Northwood Pulp & Timber

Production	Pulp Tons	Lumber M FBM
1974	208,000	447,000
1973	234,000	504,500
1972	230,000	481,000
1971	215,500	315,000
1970	244,000	238,000

B.C. Forest Products

Production	Lumber M FBM	Plywood MSM 1/16″	Pulp Tons	Newsprint Tons
	(000's)	(000's)	(000's)	(000's)
1974	474	986	466	246
1973	536	1,162	452	256
1972	537	748	273	233
1971	483	804	221	232
1970	485	659	217	187

Noranda Mines Limited
(Incorporated under the laws of Ontario) and its consolidated subsidiaries

Consolidated Balance Sheet — December 31

	1974	1973
ASSETS	*(in thousands)*	
Current Assets		
Cash and short-term commercial notes	**$ 36,945**	$ 24,511
Marketable investments, at cost less amounts written off (quoted market value $44,486,000)	**39,396**	26,754
Accounts, advances and tolls receivable	**216,592**	194,234
Inventories (note 1)	**312,511**	235,213
	605,444	480,712
Investments In And Advances To Associated And Other Companies (note 2)	**325,989**	220,631
Fixed Assets		
Property, buildings and equipment, at cost	**1,181,269**	916,068
Accumulated depreciation (note 1)	**(496,234)**	(333,415)
	685,035	582,653
Other		
Preproduction ($38,791,000), exploration ($20,404,000) and other expenditures deferred (note 1)	**85,544**	65,132
Debenture and revenue bond discount and financing expenses, at cost less amortization	**5,284**	4,460
	90,828	69,592
	$1,707,296	$1,353,588

(See accompanying notes)

Auditors' Report
To the Shareholders of Noranda Mines Limited

We have examined the consolidated balance sheet of Noranda Mines Limited and its consolidated subsidiaries as at December 31, 1974 and the consolidated statements of earnings, retained earnings, and changes in financial position for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

Toronto, Canada,
February 21, 1975.

	1974	1973
LIABILITIES	*(in thousands)*	
Current Liabilities		
Bank advances	**$ 62,422**	$ 25,667
Accounts payable	**202,967**	193,782
Taxes payable	**72,676**	30,837
Debt due within one year (note 3)	**84,489**	83,833
	422,554	334,119
Deferred Liabilities And Holdbacks Payable	**6,804**	5,240
Taxes Provided Not Currently Payable (note 1)	**101,460**	56,811
Long-Term Debt (note 3)	**383,680**	335,563
Minority Interest In Subsidiaries	**99,952**	44,172
Shareholders' Equity		
Capital stock (note 4)		
Authorized: 40,000,000 shares of no par value		
Issued: 24,442,441 shares (note 4(a))	**84,739**	81,490
Contributed surplus	**5,043**	5,043
Retained earnings	**615,042**	502,509
	704,824	589,042
Less the Company's pro rata interest in its shares held by subsidiary and associated companies	**(11,978)**	(11,359)
	692,846	577,683
	$1,707,296	$1,353,588

On behalf of the Board:
William S. Row, Director
Alfred Powis, Director

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1974 and the results of their operations and the changes in their financial position for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Clarkson, Gordon & Co.,
Chartered Accountants.

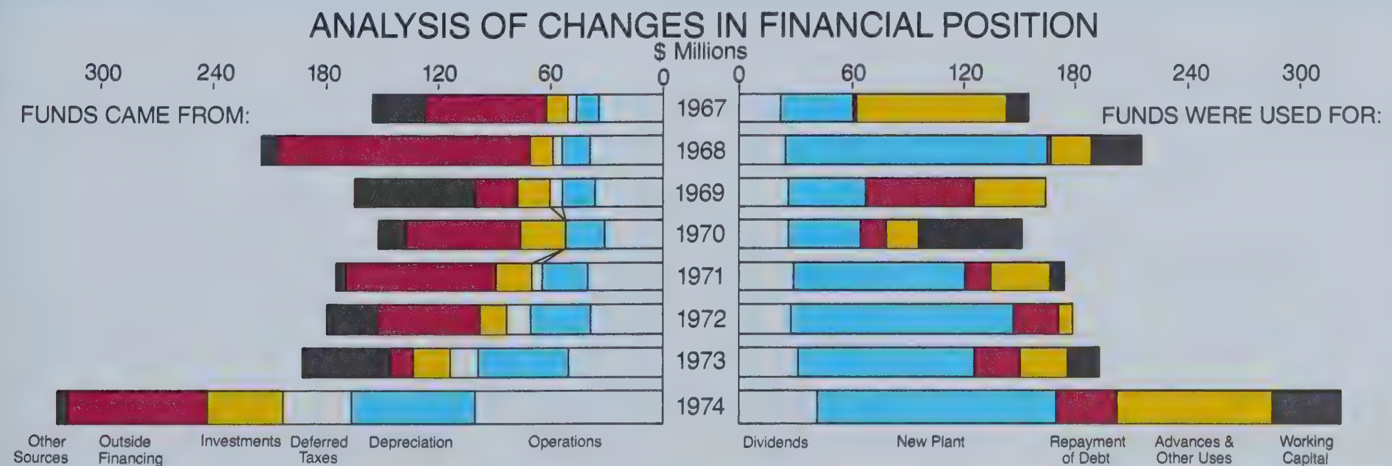
Consolidated Statements Of Earnings And Retained Earnings
For the Years Ended December 31,

	1974	1973
EARNINGS	*(in thousands)*	
Revenue		
From metals, products and custom tolls (note 7)	**$1,147,041**	$848,545
Dividends, interest and other income	**4,859**	2,086
	1,151,900	850,631
Expense		
Cost of metal production and products sold	**734,747**	616,431
Administration, selling and general expenses	**66,045**	45,248
Depreciation ($59,834,000) and preproduction charges (note 1)	**66,776**	48,718
Exploration and research written off (notes 1 & 9)	**22,360**	11,345
Interest-net (including long-term debt interest of $30,321,000) (note 1)	**33,802**	19,834
	923,730	741,576
	228,170	109,055
Income and production taxes (note 6)	**106,636**	54,226
Minority interest in profits of subsidiaries	**17,099**	1,346
	123,735	55,572
Earnings of Noranda and subsidiary companies	**104,435**	53,483
Share of after-tax profits in associated companies (note 2)	**50,435**	67,911
Earnings	**$ 154,870**	$121,394
Earnings per share (note 1)	**$ 6.59**	$ 5.17
RETAINED EARNINGS		
Balance, beginning of year	**$ 502,509**	$413,980
Earnings	**154,870**	121,394
	657,379	535,374
Dividends paid (note 4(a))	**42,337**	32,865
Balance, end of year	**$ 615,042**	$502,509

(See accompanying notes)

	1974	1973
	(in thousands)	
Working Capital, beginning of year	**$146,593**	$129,246
Source Of Funds		
Operations—		
Earnings	**154,870**	121,394
Depreciation and preproduction charges	**66,776**	48,718
Taxes provided not currently payable	**37,500**	15,371
Minority interest in profits of subsidiairies	**17,099**	1,346
Share of earnings less dividends of associated companies	**(31,940)**	(51,186)
	244,305	135,643
Issue of shares	**3,249**	1,273
Long-term financing	**72,055**	10,865
Fixed asset disposals and adjustments	**2,583**	8,692
Increase in deferred liabilities and holdbacks payable	**1,564**	936
	323,756	157,409
Application Of Funds		
Fixed assets	**101,674**	82,918
Non-current assets (net) of acquired subsidiaries (note 2(c)) Fraser Companies Limited	**11,394**	24,335
Dividends	**42,337**	32,865
Investments and advances (net)	**73,418**	(36,014)
Current maturities of long-term debt	**33,657**	25,151
Deferred preproduction, exploration and other expenditures	**26,457**	11,248
Other (net)	**(1,478)**	(441)
	287,459	140,062
Net increase	**36,297**	17,347
Working capital, end of year	**$182,890**	$146,593

(See accompanying notes)



1. Accounting policies

Basis of presentation of financial statements

The accompanying financial statements include, on a consolidated basis, the accounts of Noranda Mines Limited (the Company) and all of its subsidiaries. Noranda's interest in companies (associated companies) in which it has effective control (but not majority share ownership) or otherwise has significant influence are accounted for on the basis of cost plus the Company's equity in undistributed earnings in such companies since the dates of investment in them. Other long-term investments are carried at cost less amounts written off.

Certain subsidiary and associated companies own shares in the Company. The carrying value of such shares has been deducted from the Company's shareholders equity to the extent of Noranda's proportionate interest in such companies. Similarly the Company's earnings per share has been calculated based on the number of its shares outstanding after reduction for such intercompany holdings.

Translation of foreign currencies

Foreign currency assets and liabilities of the Company and its domestic subsidiaries are translated into Canadian dollars at current rates of exchange.

The statements of companies outside of Canada are translated into Canadian dollars as follows: working capital at exchange rates prevailing at the end of the period; fixed and other long-term assets, long-term debt, and depreciation provisions on the basis of historic rates of exchange; revenues and expenses (other than depreciation) at average rates during the period. Equity in earnings of associated foreign companies are translated in a similar manner. Exchange gains or losses from the translation procedures are included in consolidated earnings.

Inventories

Mine products are valued at estimated realizable value and other inventories at the lower of cost or market.

Depreciation, preproduction charges

Depreciation of property, buildings and equipment and amortization of preproduction expenditures is based on the estimated service lives of the assets calculated using the method considered appropriate in the circumstances, for the most part the straight-line method for fixed assets and unit of production method for preproduction.

Exploration

Mineral and petroleum exploration expenditures are charged against current earnings unless they relate to properties from which a productive result is reasonably certain or on which work is in process. Gains on sale or recoveries of costs previously written off are normally credited against exploration expense.

Income taxes

Under the income tax laws some costs and revenues are includible in taxable income in years which are earlier or later than those in which they are included in income reported in the financial statements. As a result of these timing differences between taxable income and reported income, income taxes currently payable normally differ from the provision for taxes charged to earnings. The differences are shown in the consolidated balance sheet as taxes provided not currently payable.

Potential tax savings related to losses incurred (and, in the U.S. investment tax credits) are not reflected in earnings before realization unless they are virtually certain of recovery.

Interest

Generally interest expense is charged against income as incurred except interest on debt that can be specifically identified with a major capital expenditure program. In these circumstances interest is capitalized during the construction period.

Research

Research expense is charged against income as incurred.

Aluminum plant

Assets and the related debt of the aluminum plant in New Madrid, Missouri, while technically the property and obligation of the City, are carried on the Company's books by virtue of its long-term lease option and unconditional guarantees.

2. Investments

(a) Investments in and advances to associated and other companies consist of:

Investments—carried on an equity basis	Direct Interest	Carrying Value ($000) 1974	1973
British Columbia Forest Products Limited	29%	$ 37,269	$ 33,119
Craigmont Mines Limited	20	4,164	3,477
Kerr Addison Mines Limited	41	24,108	20,903
Mattagami Lake Mines Limited (N.P.L.)	34	34,371	23,083
Northwood Pulp and Timber Limited	50	14,014	12,083
Orchan Mines Limited	45	9,548	8,492
Pamour Porcupine Mines Limited	49	5,712	4,696
Placer Development Limited	31	61,492	44,429
Tara Exploration and Development Co.	19	30,647	—
Frialco/Friguia Guinean consortium	20	18,422	—
Other Companies	—	40,779	31,789
		$280,526	$182,071

Other Investments and Advances	Direct Interest	Carrying Value ($000) 1974	1973
Shares at cost less amounts written off	—	$ 11,079	$ 11,773
Advances and other indebtedness	—	34,384	26,787
		$325,989	$220,631

(b) Included above are shares carried at a book value of $157,126,000 which had a quoted market value of $227,329,000 at December 31, 1974. The latter amount does not necessarily represent the value of these holdings, which may be more or less than that indicated by market quotations.

(c) During the year the Company acquired for cash 54.6% of the shares of Fraser Companies Limited (Fraser). The assets and liabilities of Fraser are included in the accompanying consolidated balance sheet at December 31, 1974, and the results of its operations are reflected in the consolidated earnings statement from April 9, 1974, the date of acquisition.

The cost of Fraser's shares compares with the consolidated book value of the assets and liabilities of Fraser at the date of acquisition as follows:

	($000)
Book value of assets	$116,662
Book value of liabilities	33,821
Net book value	82,841
Deduct minority interest share in net assets	37,299
	45,542
Adjustment to fair value	9,097
Total cost to Noranda	$ 36,445

The net assets of Fraser at fair value as at the date of acquisition were included in the consolidated balance sheet in the following categories:

Current assets	$ 40,444
Current liabilities	15,393
Net working capital	25,051
Fixed assets	63,125
Debenture discount	1,153
Other assets	2,093
	91,422
Minority interest	(37,299)
Deferred taxes	(7,149)
Long-term debt	(10,529)
Total cost to Noranda	$ 36,445

3. Debt

(a)

Long-term Debt:	Dec. 31, 1974	Dec. 31, 1973
	(in thousands)	
Noranda Mines Limited		
6 1/2% notes due February 3, 1975	$ 20,000	$ 20,000
7 1/2% sinking fund debentures October 1, 1988	28,400	30,000
9 1/4% sinking fund debentures October 15, 1990	39,100	40,000
9 3/4% sinking fund debentures May 1, 1994	50,000	—
Canada Wire and Cable Co. Limited		
5 5/8% sinking fund debentures maturing June 1, 1983	1,900	2,330
Noranda Aluminum Inc.		
4.80% to 5.90% industrial revenue bonds, serial and sinking fund issues, maturing November 1, 1975 to 1978 and 1993 (December 31, 1974—$78,440,000 U.S., December 31, 1973—$80,730,000 U.S.)	83,900	86,430
Norandex Inc.		
5 1/2%—9 1/4% mortgage notes payable in monthly instalments to 1990 (December 31, 1974 $10,281,000 U.S. December 31, 1973—$10,660,000 U.S.)	11,000	11,410
Brunswick Mining and Smelting Corporation Ltd.		
5.85% first mortgage sinking fund bonds, series "A" maturing April 1, 1975-1986 inclusive	12,600	12,800
7.25% general mortgage sinking fund bonds, series "A" maturing August 15, 1975-1987 inclusive	13,600	15,250
Fraser Companies, Limited		
5 1/8% first mortgage and collateral trust bonds due 1976-87—($9,700,000 U.S.)	10,500	—
Sundry Indebtedness	2,700	1,700
	273,700	219,920
Other debt:		
Banker's acceptances	15,000	26,000
Notes payable (note 3(b))	179,469	173,476
	468,169	419,396
Debt due within one year	84,489	83,833
Long-term debt	$383,680	$335,563

Maturities of long-term debt are as follows:
1976-$22,700,000: 1977-$8,800,800: 1978-$129,200,000: 1979-$12,000,000: subsequent—$210,979,200.

(b) Notes payable, representing promissory notes with maturities from January to May 1975 have been classified as long-term debt to the extent of the Company's revolving contractual credits with its bankers of $120,000,000 extending to June 30, 1978.

4. Shareholders' equity

(a) The issued capital stock at December 31, 1974 is summarized below:

Class A	23,126,189 shares
Class B	1,316,252
Total	24,442,441
Less the Company's pro rata interest in its shares held by subsidiary and associated companies	882,367
	23,560,074

During the year the following dividends were declared:	
Class A—$1.80/share	$41,594,000
Class B—$1.53/share plus 15% tax on undistributed income	2,290,000
Total	43,884,000
Less the Company's pro rata share of dividends paid to subsidiary and associated companies	1,547,000
Net charge to the retained earnings	$42,337,000

Class A and Class B shares are voting, convertible into one another on a share for share basis and rank equally with respect to dividends and in all other respects. The only distinction between the two classes is that the directors may specify that cash dividends

on Class B shares be paid first out of tax-paid undistributed surplus on hand and then out of 1971 capital surplus on hand (as those expressions are defined in the Income Tax Act of Canada), with the result that Class B dividends so paid will be less than the Class A dividends by the amount of tax paid thereon.

(b) (i) During the year 1,820 shares in the Company's capital stock were issued under the Company's stock option plan for $49,505 and under the Company's share purchase plan 96,850 shares were issued for $3,199,950.

(ii) Under the provisions of the stock option plan,

— Options were granted during the year on 70,375 shares exercisable up to November 12, 1982 at $28.50 per share and 26,140 options were cancelled during the year.

— At December 31, 1974 options on 83,115 shares were outstanding, exercisable at prices varying from $22.94 to $47.87 for periods up to 1982.

(c) Under the Company's share purchase plan shares are sold to a trustee for resale to employees financed by an interest-free loan from the Company. At December 31, 1974 the amount of the loan included in accounts receivable was $5,082,000.

5. Commitments and Contingent Liabilities

(a) Approved capital projects and financing commitments outstanding total approximately $149,000,000 at December 31, 1974.

(b) The Company has arranged, guaranteed or is contingently liable for repayment of loans of associated and other companies to the extent of approximately $48,000,000.

(c) As at December 31, 1974 Noranda's total unfunded obligation under its pension plans with respect to past service is estimated at $7,566,000 of which $800,000 has been provided in the accounts. These obligations are funded as required by applicable governing legislation. In Canada the past service obligation is funded and absorbed against income over a period up to 15 years.

(d) The Company and certain of its subsidiaries from time to time enter into long-term lease arrangements for buildings and vessels, such arrangements currently giving rise to annual charges totalling approximately $995,000 and $1,200,000 respectively.

6. Income Taxes

At December 31, 1974 certain subsidiaries of the company had estimated loss carry-forwards of approximately $13,000,000. U.S. investment tax credits of approximately $6,000,000 were also available. During the year, U.S. income tax loss carry-forwards of $13,000,000 were realized, giving rise to a tax credit of $6,400,000. This amount was not considered material enough to show as an extraordinary item, and was credited to the income tax provision.

During 1974 the Canadian federal and certain provincial governments proposed amendments to various Acts under which they collect taxes and royalties. Although these amendments have not yet all been enacted the 1974 tax provisions have been computed as though they were law.

7. Consolidated Divisional Revenues

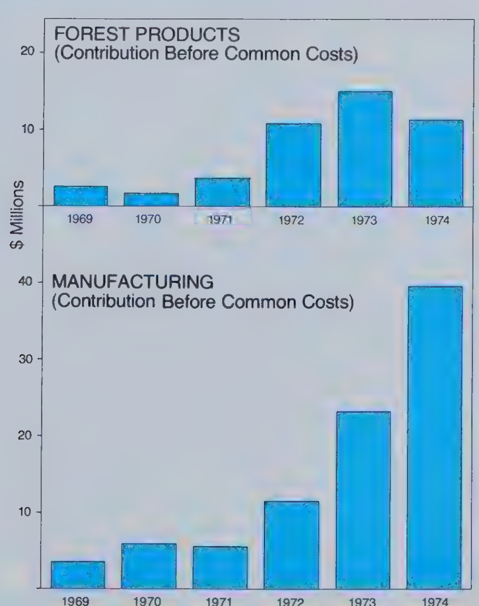
Revenues from the main divisions of the business are set out on page 38 in the table of "Consolidated Divisional Results".

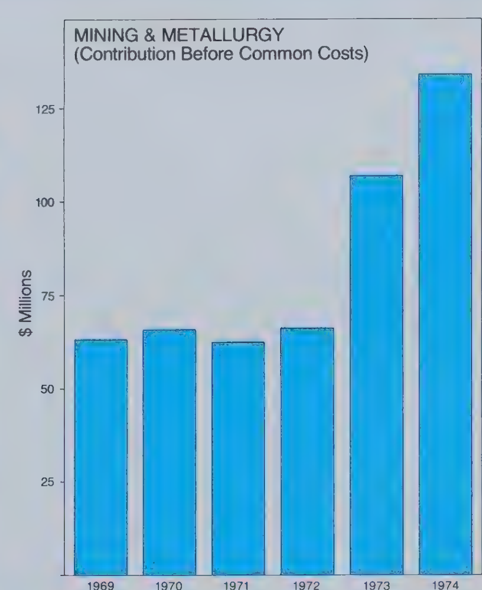
8. Remuneration of Directors and Senior Officers

The aggregate direct remuneration paid or payable by the Company and its consolidated subsidiaries to directors and senior officers amounted to $1,338,000.

9. Exploration Expense

In the current year a gain from the sale of Noranda's interest in a uranium prospect in New Mexico amounting to $4,724,000 has been offset against exploration expenditures written off.





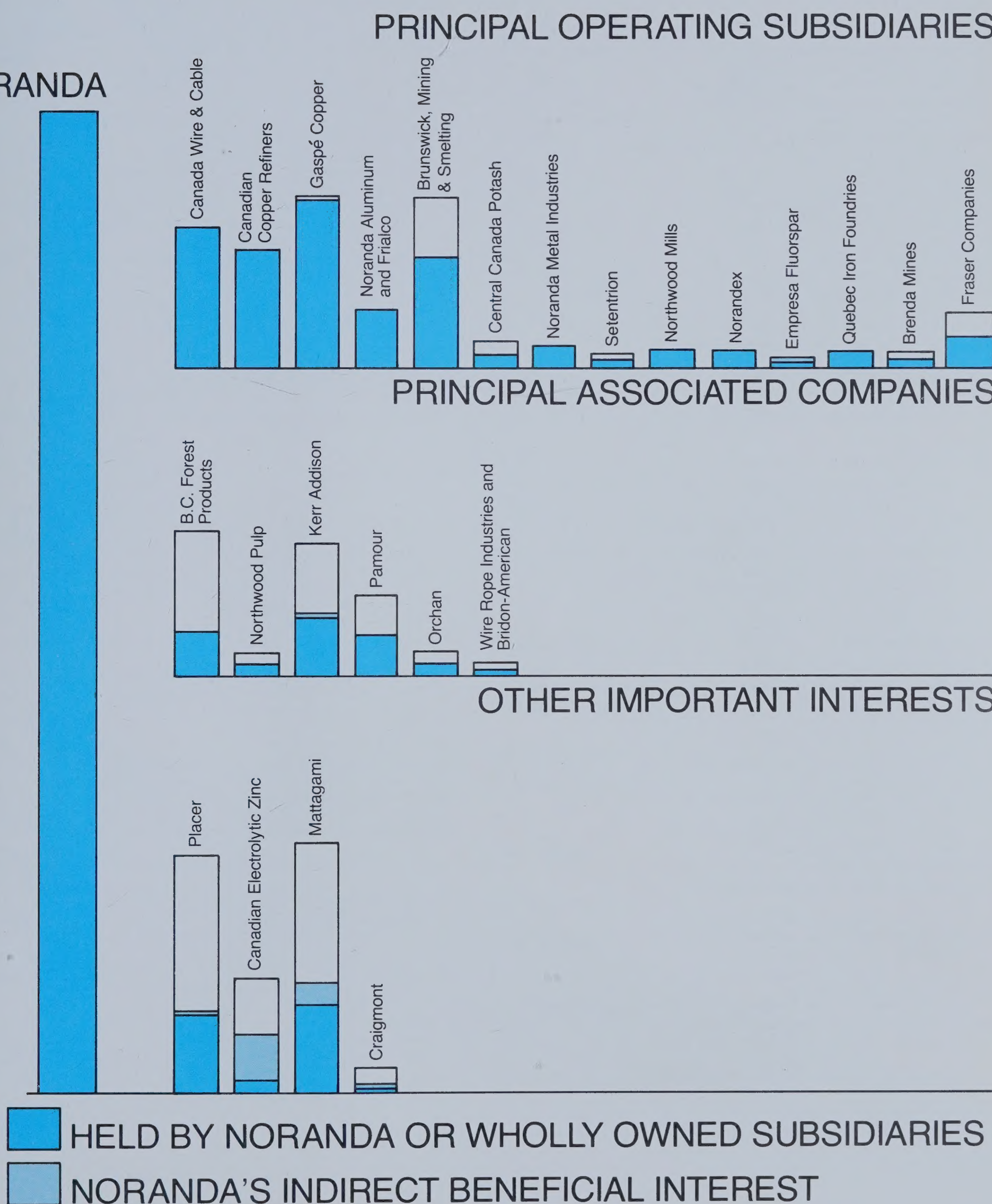
Consolidated Divisional Results

	1974	1973
	(in thousands)	
Revenue From Metals, Products And Custom Tolls		
Copper mining, smelting and refining operations*	**$ 394,560**	$ 327,890
Other mining and metallurgical operations**	**339,130**	229,638
Total mining and metallurgical operations	**733,690**	557,528
Manufacturing operations**	**563,961**	438,798
Forest products operations**	**365,126**	253,889
Gross revenue	**$1,662,777**	$1,250,215
Less: sales between divisions	**170,023**	102,709
sales by associated companies**	**345,713**	298,961
Revenue as reported	**$1,147,041**	$ 848,545
Earnings		
Copper mining, smelting and refining operations*	**$ 80,037**	$ 46,259
Other mining and metallurgical operations**	**66,749**	67,403
Earnings from mining investments	**1,816**	1,117
Gross mining and metallurgical earnings	**148,602**	114,779
Less exploration written off net of applicable tax reductions	**14,396**	7,673
Net mining and metallurgical earnings	**134,206**	107,106
Manufacturing operations and investments	**39.337**	23,233
Forest products operations**	**11,317**	15,005
Earnings before common costs	**184,860**	145,344
Less common costs	**29,990**	23,950
Earnings as reported	**$ 154,870**	$ 121,394
Breakdown Of Common Costs		
Corporate office costs	**$ 9,866**	7,512
Interest expense net of revenue	**32,496**	23,599
Unallocated research costs	**1,072**	982
Less applicable tax reductions	**(13,444)**	(8,143)
Total	**$ 29,990**	$ 23,950

*Consists of operations of the Horne, Geco and Bell Copper mines, Gaspé Copper Mines and Canadian Copper Refiners.

**Gross revenues and earnings include Noranda's share of the revenues and earnings of associated companies accounted for on an equity basis. These gross revenues include $126,338,000 from mining and metallurgical operations, $133,639,000 from forest operations, and $85,736,000 from manufacturing operations in 1974. ($122,377,000, $126,336,000 and $50,248,000 respectively in 1973.)

MAJOR INTERESTS



Where applicable the size of each bar indicates the total market value of shares outstanding, as of Dec. 31, 1974

Noranda — Operating Interests

Domestic

Mines	Ore
Horne Division, Noranda, Que.	copper-gold
Geco Division, Manitouwadge, Ont.	copper-zinc-silver
Bell Copper Division, Granisle, B.C.	copper-gold
Boss Mountain Division, Hendrix Lake, B.C.	molybdenum
Alberta Sulphate, Horseshoe Lake, Alta.	sodium sulphate
Brenda Mines, Peachland, B.C.	copper-molybdenum
Brunswick Mining & Smelting	zinc-lead
Bathurst, N.B.	copper-silver
Central Canada Potash, Colonsay, Sask.	potash
Gaspé Copper Mines, Murdochville, Que.	copper
Kerr Addison Mines, Virginiatown, Ont.	gold
Normetal Mines, Normetal, Que.	zinc-copper-silver
Joutel Mines, Joutel, Que.	copper-zinc
Langmuir Property, Pamour, Ont.	nickel
Mattagami Lake Mines, Matagami, Que.	zinc-copper-silver
Mattabi Mines, Ignace, Ont.	zinc-copper-silver
Orchan Mines, Matagami, Que.	copper-zinc
Pamour Porcupine Mines, Pamour, Ont.	gold
Schumacher Division, Schumacher, Ont.	copper-gold
Placer Development	
Craigmont Mines, Merritt, B.C.	copper
Endako Mine, Fraser Lake, B.C.	molybdenum
Gibraltar Mines, McLeese Lake, B.C.	copper

Metallurgical	Type
Horne Division, Noranda, Que.	copper smelter
Gaspé Copper, Murdochville, Que.	copper smelter
Canadian Copper Refinery, Montreal East, Que.	copper refiners
Brunswick Smelting Division, Belledune, N.B.	lead smelter
Canadian Electrolytic Zinc, Valleyfield, Que.	zinc reduction plant
Federated Genco, Scarborough, Ont.	metal-alloys
Plants: Burlington & Scarborough, Ont. Lachine, Que.	

Fertilizer Plants	Main Product
Belledune Fertilizer, Belledune, N.B.	diammonium phosphate
St. Lawrence Fertilizers, Valleyfield, Que.	diammonium phosphate and triple superphosphate

Forest Products	Main Products
Northwood Mills, Penticton, B.C.	lumber, doors, mouldings
Sawmills — Penticton, Princeton (2) Okanagan Falls	
Manufacturing Div. — Burnaby, B.C.	
Airscrew — Weyrock, Chatham, N.B.	particle board
Fraser Companies, Edmundston, N.B.	lumber
Sawmills — Plaster Rock and Kedgwick	pulp, paper, paperboard
Pulp Mills — Edmundston, and Atholville	
Northwood Pulp and Timber, Prince George, B.C.	lumber and pulp
Sawmills — Prince George, Houston, Upper Fraser and Shelley	
Pulp Mill — Prince George	
B.C. Chemicals, Prince George, B.C.	chlorate and tall oil
British Columbia Forest Products, Vancouver, B.C.	lumber
Sawmills — Mackenzie (3), Hammond, Victoria, Cowichan and Tilbury	pulp plywood
Plywood and Veneer — Victoria, Cowichan, Delta	newsprint
Pulp Mills — Mackenzie and Crofton	
Newsprint Mill — Crofton	

Manufacturing	Main Product
Canada Wire & Cable, Toronto, Ont.	copper rod, wire & cable
Plants: Toronto, Fergus and Simcoe, Ont., St. John, N.B., Montreal East, Que. Winnipeg, Man., Weyburn, Sask., New Westminster, B.C.	
Industrial Wire & Cable Division, Toronto, Ont.	
Plants: Quebec, Que., Toronto, Ont.	
Canplas Industries, New Westminster, B.C.	plastic moulding
Plants: Barrie, Ont., and New Westminster	
Grandview Industries, (Rexdale) Toronto, Ont.	plastic moulding and extrusion
Plants: Rexdale, Brampton, and Mississauga, Ont., Montreal, Que., Edmonton, Alta., Weyburn, Sask., Langley, B.C.	
Noranda Metal Industries, Montreal East, Que.	copper sheet, strip, tube and alloys
Plants: Montreal East, Que., Fergus, Ont., New Westminster, B.C.	
Quebec Iron Foundries, Mississauga, Ont.	grinding media and secondary metal
Plants: Mont Joli (2) and Noranda, Que. Moncton and Bathurst, N.B. Surrey, B.C.	
Wire Rope Industries, Pointe Claire, Que.	steel wire rope
Plants: Pointe Claire, Que., Vancouver, B.C.	
Gourock Industries, Boucherville, Que.	synthetic rope

International

	Main Product
Bridon-American, Exeter, Pa., U.S.A.	steel wire rope
Plants: Exeter and Muncy, Pa.	
Canada Wire and Cable, International Division	wire and cable
Alambres Dominicanos, Dominican Republic	
Conductores Monterrey, Mexico	
Fadaltec, Colombia	
Fercable, Spain	
Iconel, Venezuela	
Nigerchin Electrical Development Co., Nigeria	
Termocanada Condutores Electricos, Brazil	
Tolley Industries, New Zealand	
Tyree Canada Wire, Australia	
Empresa Fluorspar, Mexico	fluorspar
Empresa Minera de el Setentrion, Nicaragua	gold
Fraser Paper, Madawaska, Maine, U.S.A.	paper
Friguia, Republic of Guinea	alumina
Kerramerican, Blue Hill, Maine, U.S.A.	zinc-copper mine
Manufacturera Colombiana de Cobre Y Laton, S.A. Colombia	copper tube
Noranda Aluminum, New Madrid, Mo., U.S.A.	aluminum reduction and wire and cable
Noranda Metal Industries	
Plants: Bellingham, Wash.	copper tube
French Tube Division, Newtown, Conn., U.S.A.	specialty tube
Norandex, Cleveland, Ohio, U.S.A.	aluminum building products
Plants: Cleveland, Ohio and Jacksonville, Florida	
Placer Development	
Marcopper Mining, Philippines	copper mine
Fox Manufacturing, Australia	industrial equipment and forest products
Northern Cattle, Australia	cattle

Molten copper pours into wirebar moulds at Canadian Copper Refiners, Montreal, on its way for use in wire products throughout the world.